

KIC 006522735

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
006522735-01	OBS	No	2.536471	132.265097	36.7	8.777	10.1	8.9	1.74	7170	1.25	4337.07
006522735-02	OBS	No	2.536440	133.513238	38.3	9.982	11.4	10.8	1.74	7170	1.15	4337.15
006522735-03	OBS	No	16.921931	137.872806	157.2	4.259	17.9	4.9	1.74	7170	2.53	345.33
006522735-06	OBS	No	8.727425	132.272232	88.4	1.106	10.3	2.3	1.74	7170	1.70	834.94
006522735-07	OBS	No	63.979141	160.926757	418.7	5.471	13.6	9.9	1.74	7170	4.32	58.63
006522735-08	OBS	No	12.358411	141.401367	404.9	1.165	9.2	8.8	1.74	7170	3.65	525.07
006522735-09	OBS	No	10.632161	132.169697	360.5	1.109	8.6	8.1	1.74	7170	3.37	641.71

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006522735-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
006522735-02	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—SAME_NTL_PERIOD
006522735-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
006522735-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
006522735-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
006522735-08	OBS	FP	0.00	1	0	1	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—HALO_GHOST
006522735-09	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

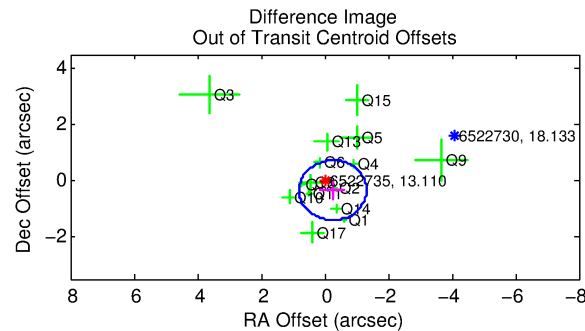
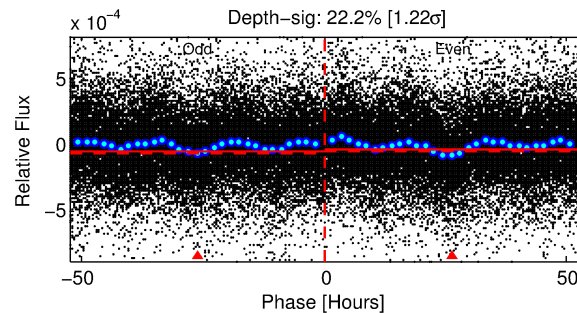
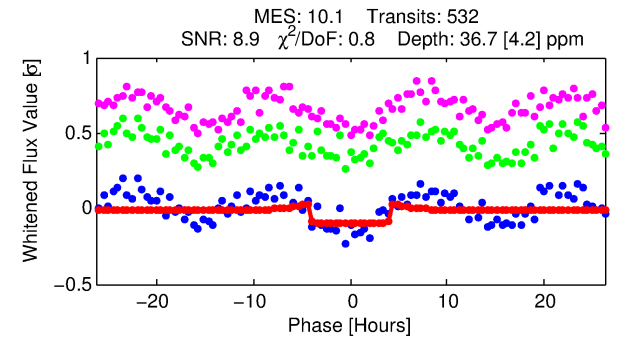
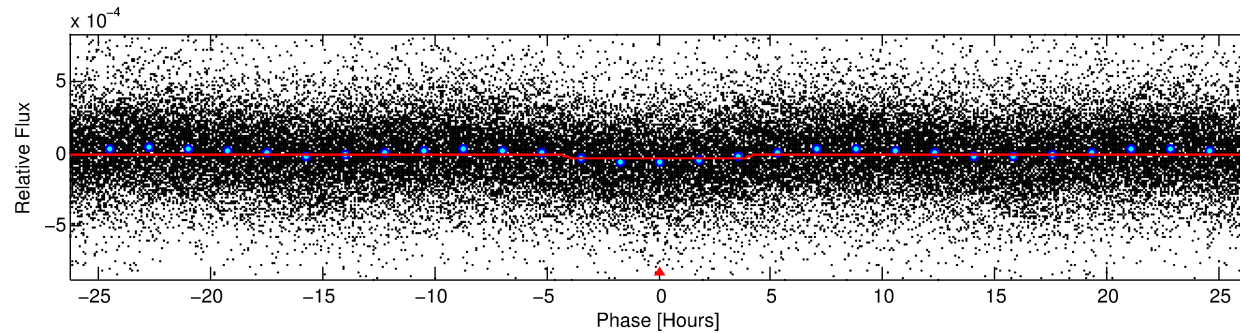
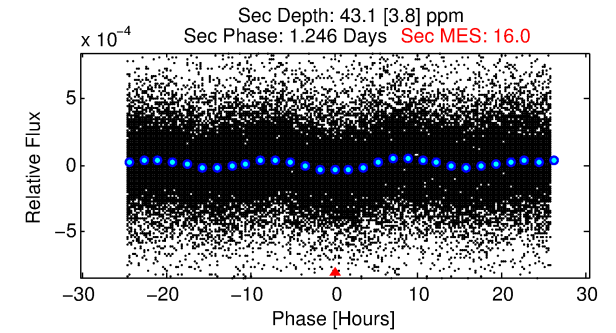
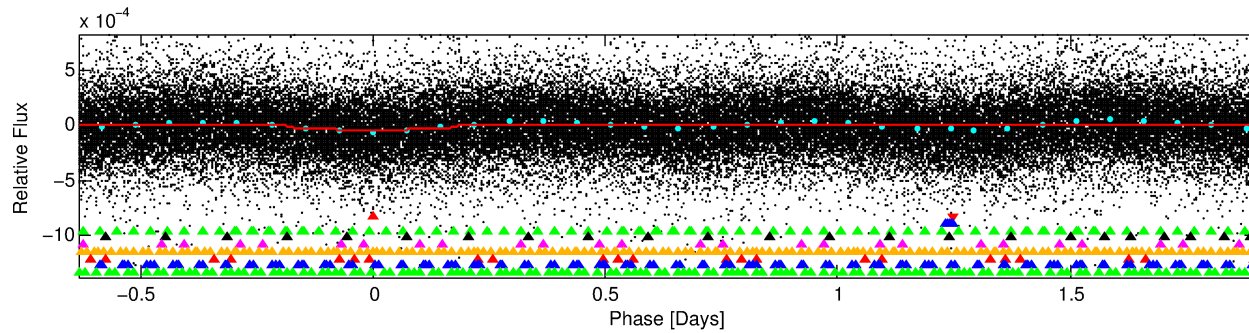
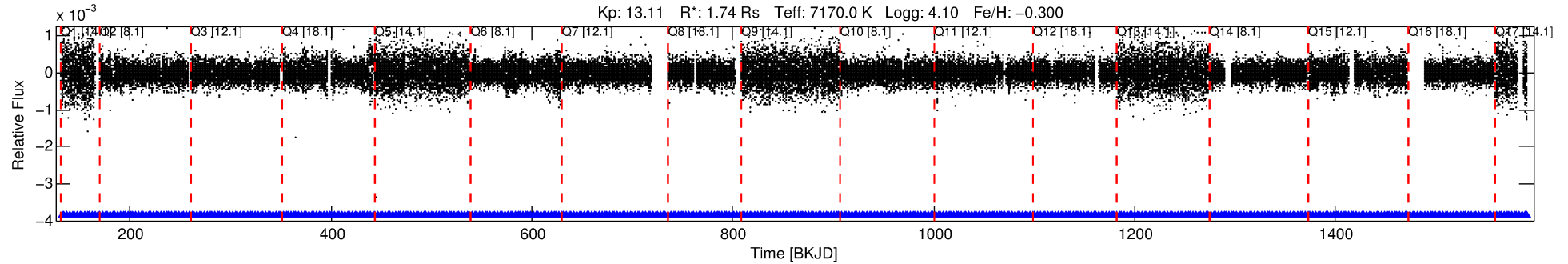
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006522735-01

No Significant Match Found

DV One-Page Summary

KIC: 6522735 Candidate: 1 of 9 Period: 2.536 d



DV Fit Results:

Period = 2.53647 [0.00003] d
Epoch = 132.2651 [0.0054] BKJD
Rp/R* = 0.0066 [0.0008]
a/R* = 1.29 [0.38]
b = 0.93 [0.11]
Seff = 4337.07 [1620.86]
Teq = 2069 [193] K
Rp = 1.25 [0.41] Re
a = 0.0407 [0.0099] AU
Ag = 25.10 [10.95] [2.20σ]
Teffp = 7161 [559] K [8.61σ]

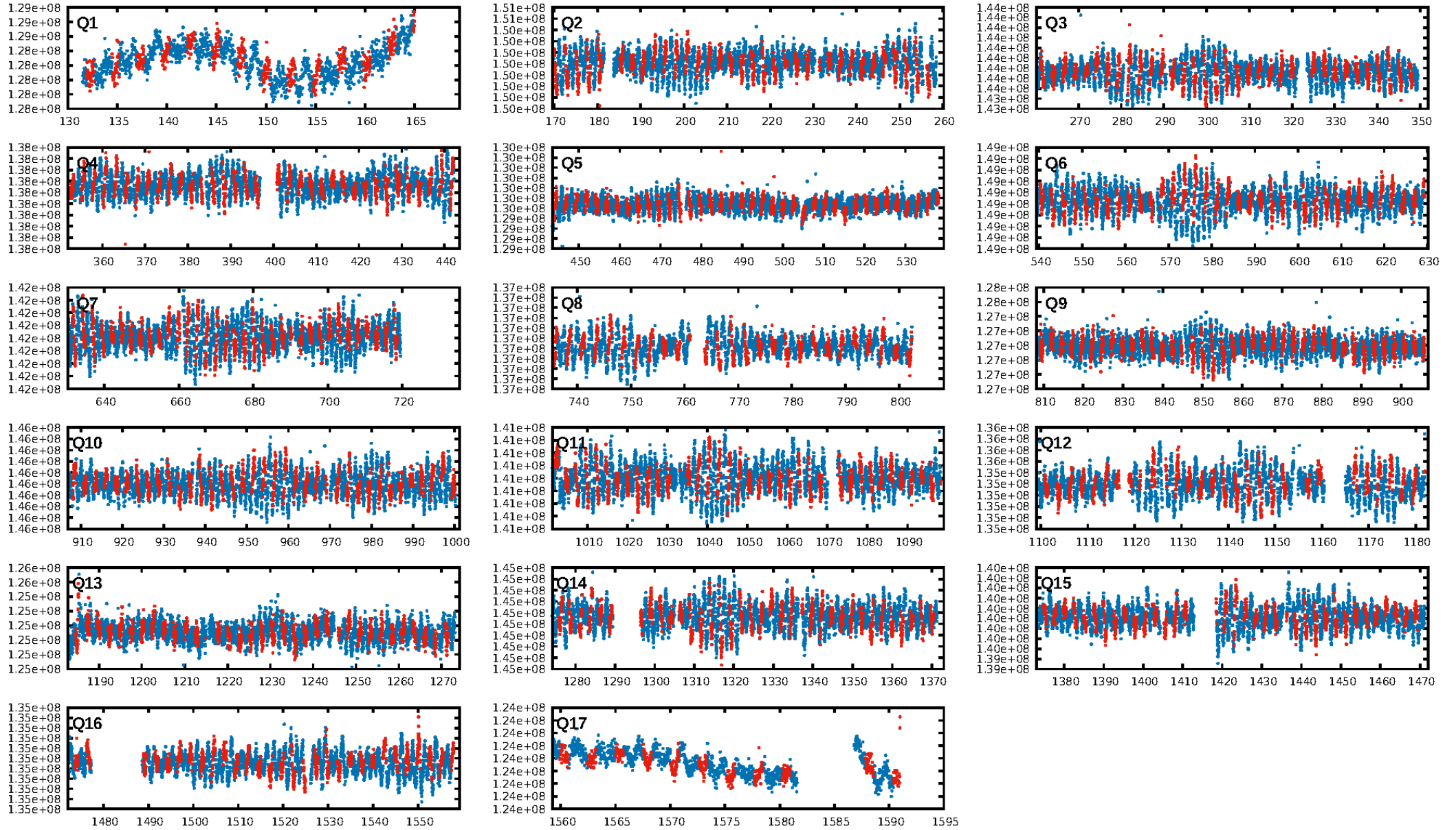
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: 100.0% [16.80σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 5.31e-70
RollingBand-fgt: 1.00 [508/508]
GhostDiagnostic-chr: 2.833
Centroid-sig: 8.9%
Centroid-so: 0.877 arcsec [1.66σ]
OotOffset-rm: 0.424 arcsec [1.20σ]
KicOffset-rm: 0.448 arcsec [1.30σ]
OotOffset-st: 4/3/3/5 [15]
KicOffset-st: 4/3/3/5 [15]
DiffImageQuality-fgm: 0.47 [7/15]
DiffImageOverlap-fno: 1.00 [17/17]

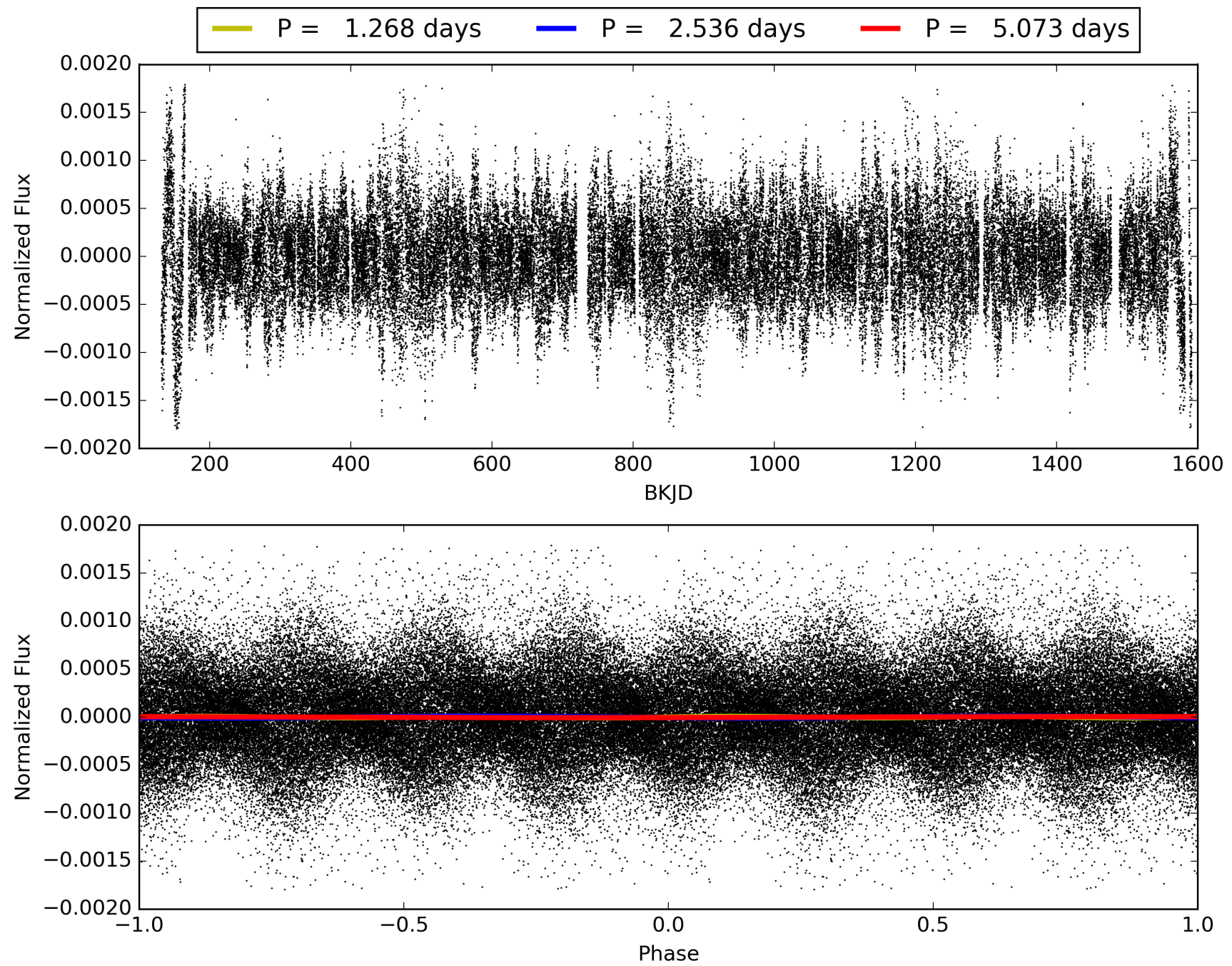
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 08:43:55 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006522735-01, PDC Light Curves

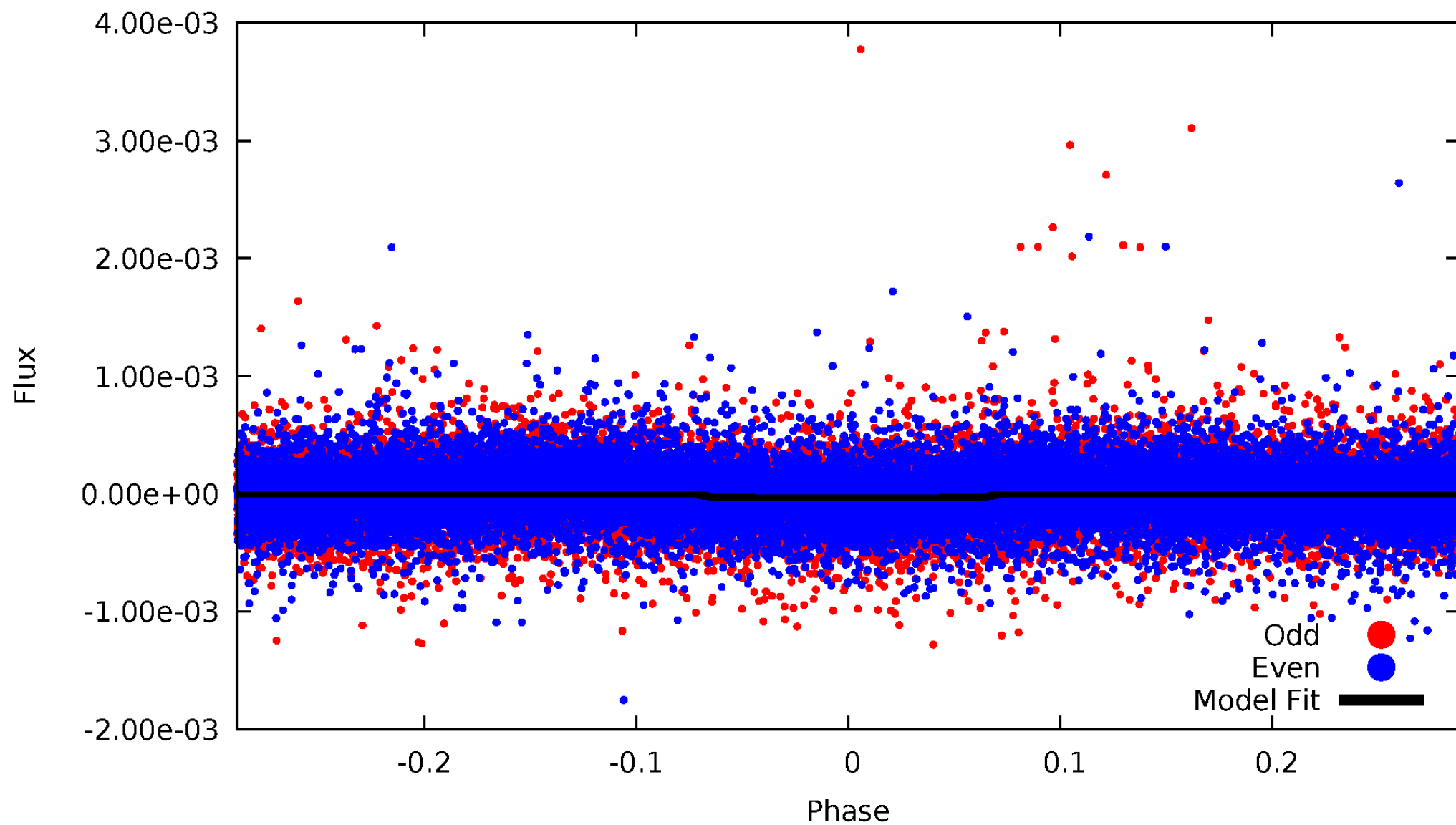


TCE 006522735-01



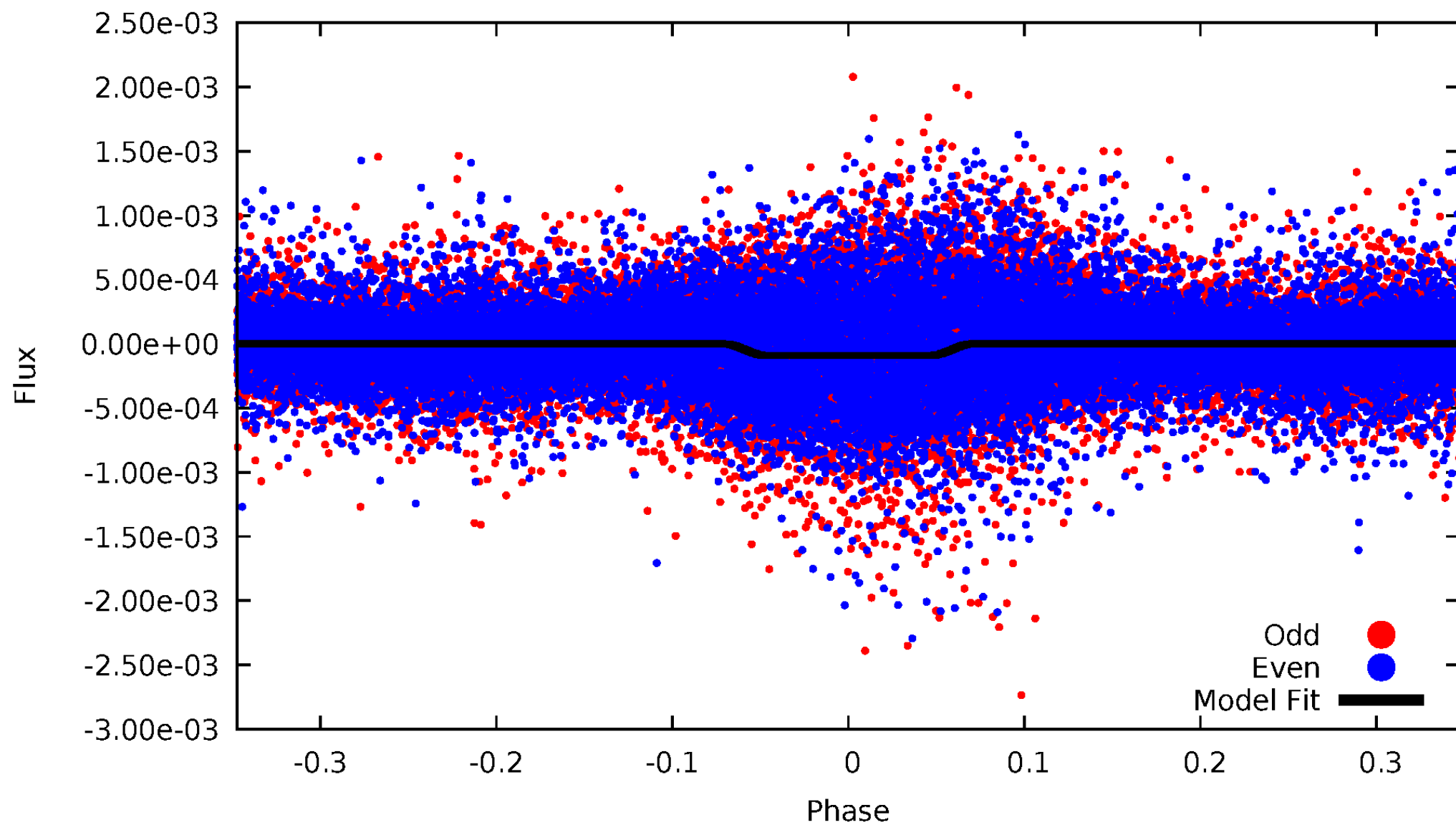
DV Odd/Even

TCE 006522735-01



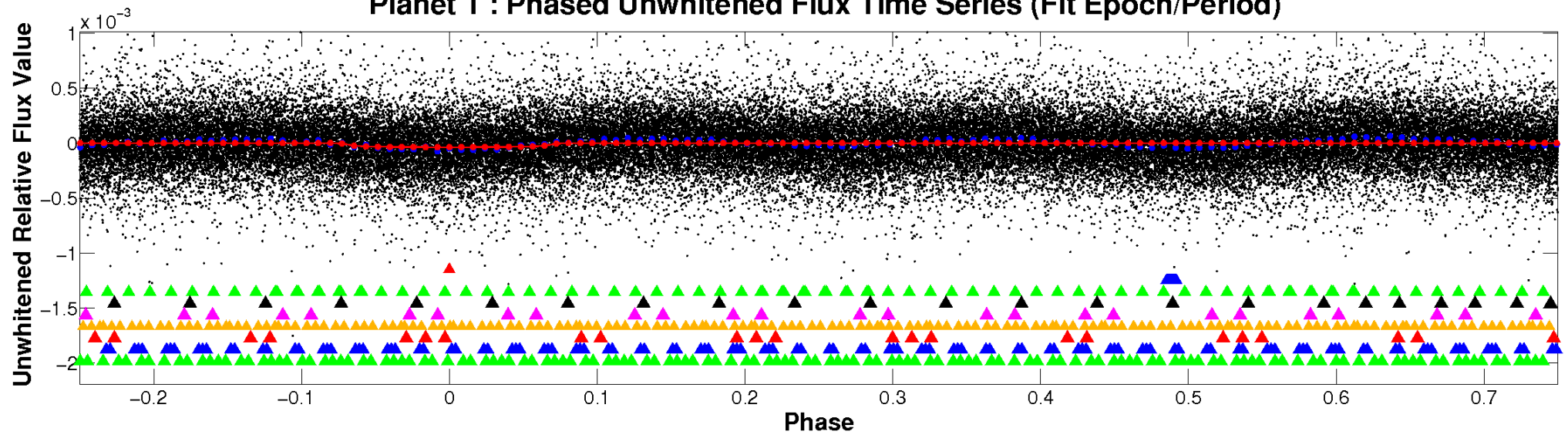
ALT Odd/Even

TCE 006522735-01

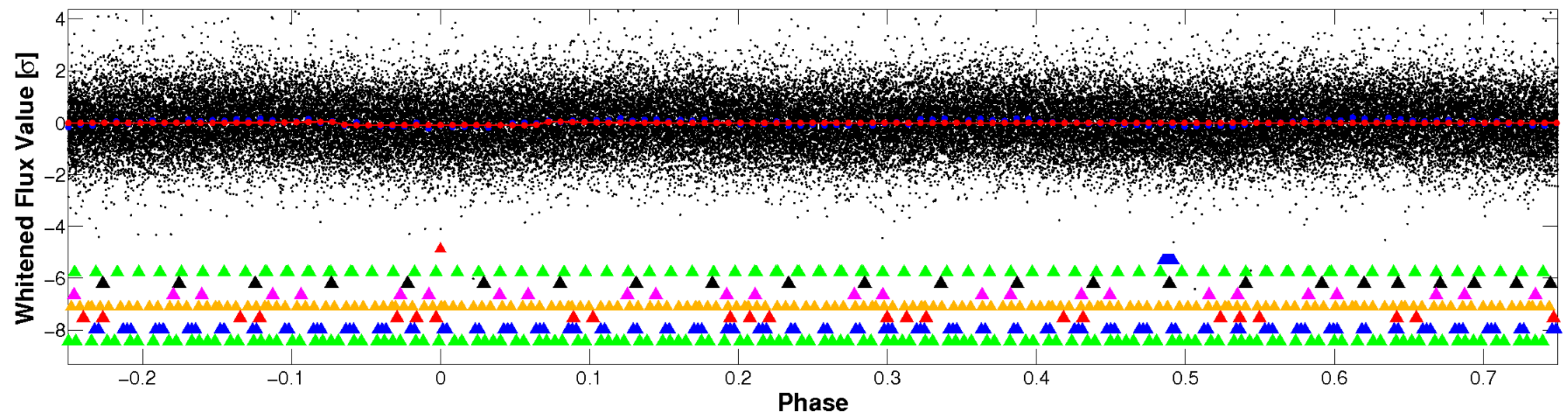


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

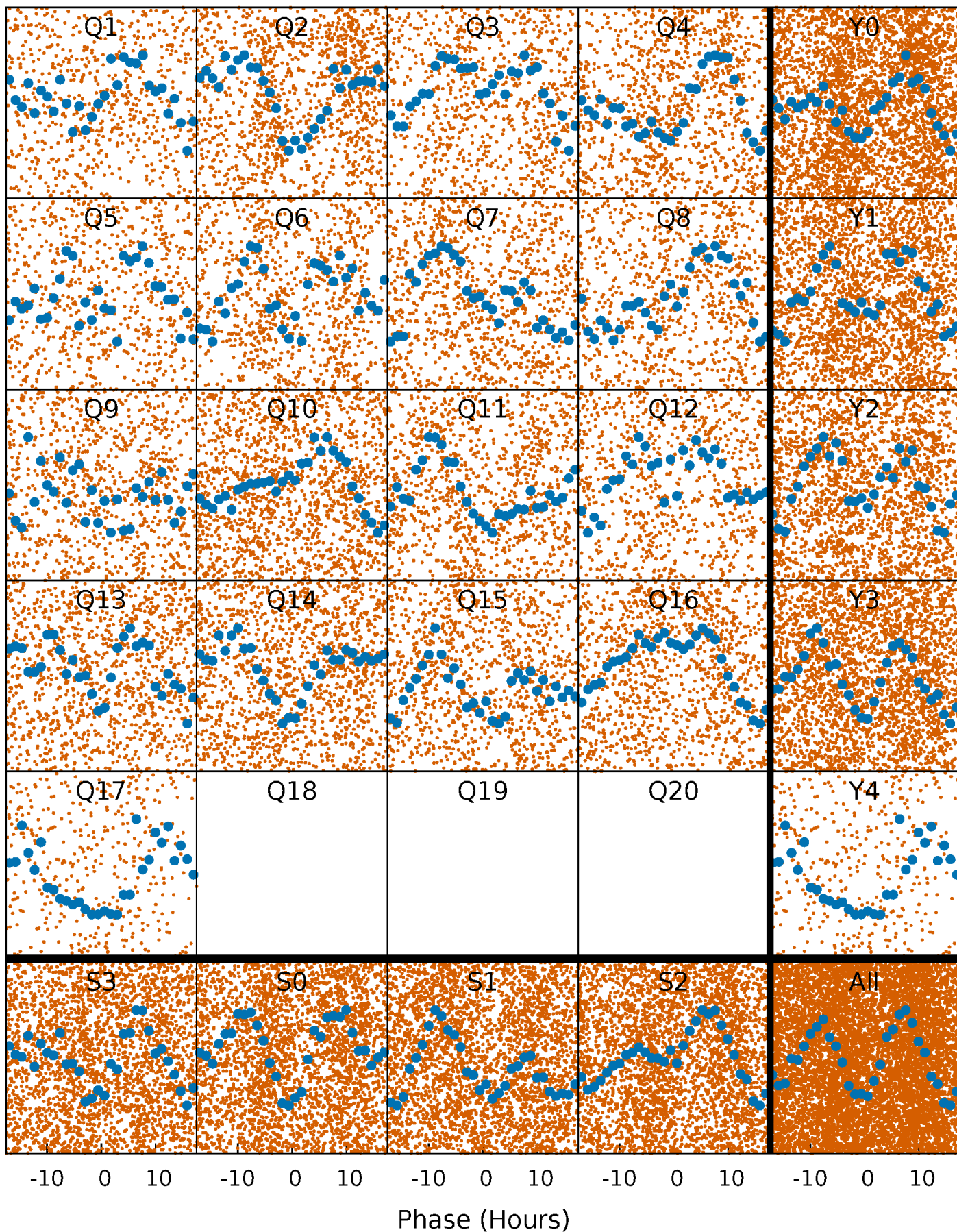


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



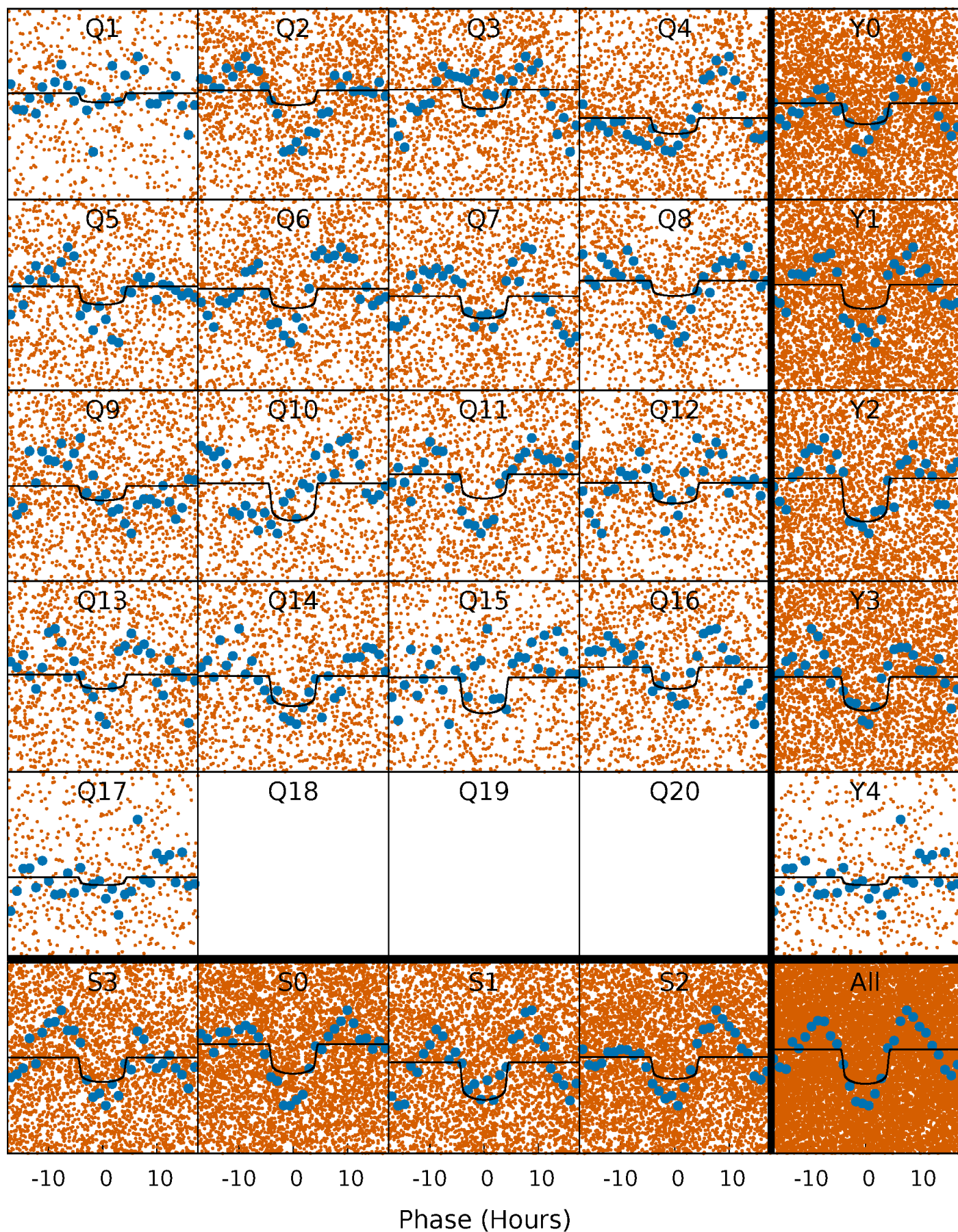
PDC Quarter-Phased Transit Curves

TCE 006522735-01 P= 2.536471 Days $T_0=132.265097$ (BKJD)



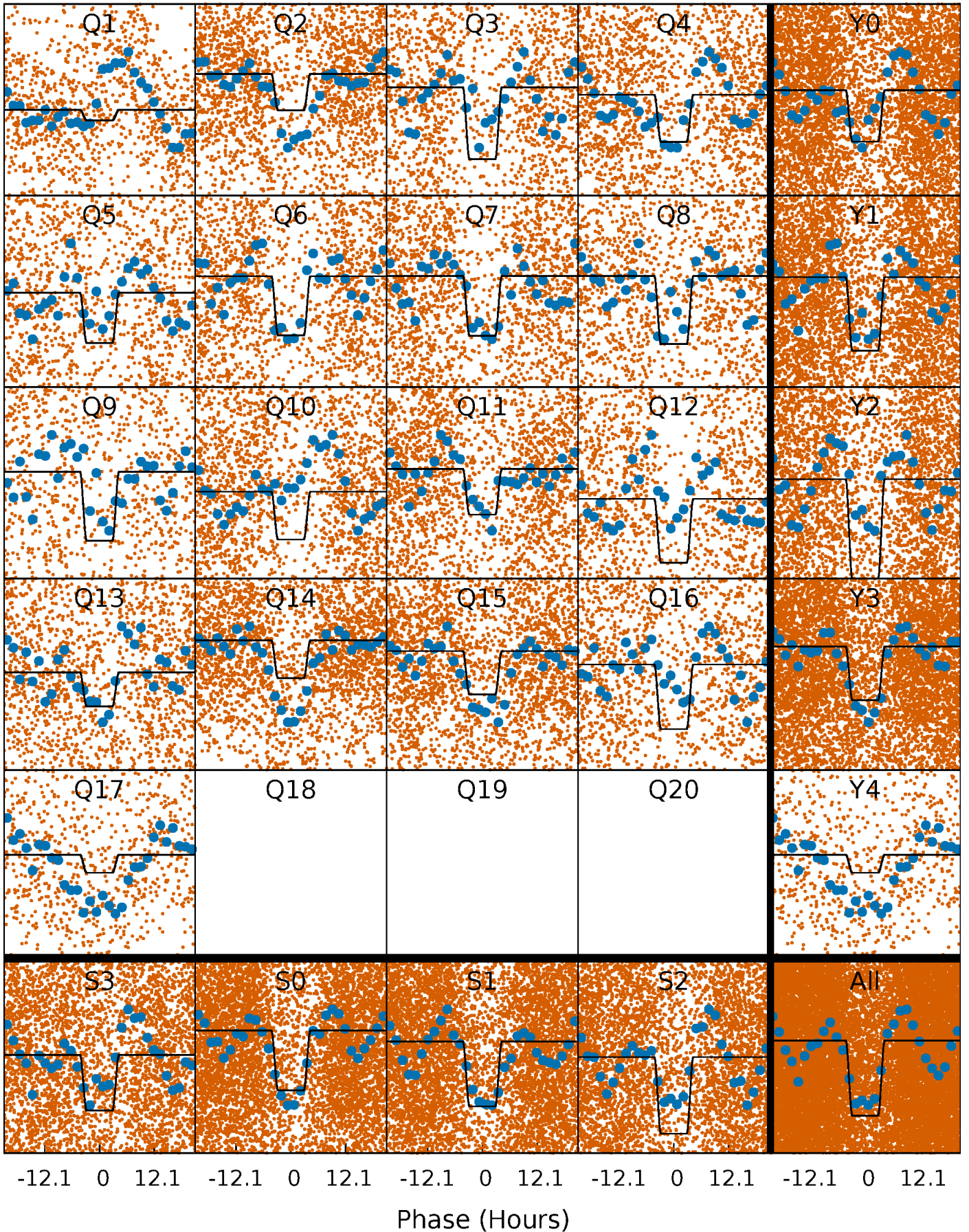
DV Quarter-Phased Transit Curves

TCE 006522735-01 P= 2.536471 Days $T_0=132.265097$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

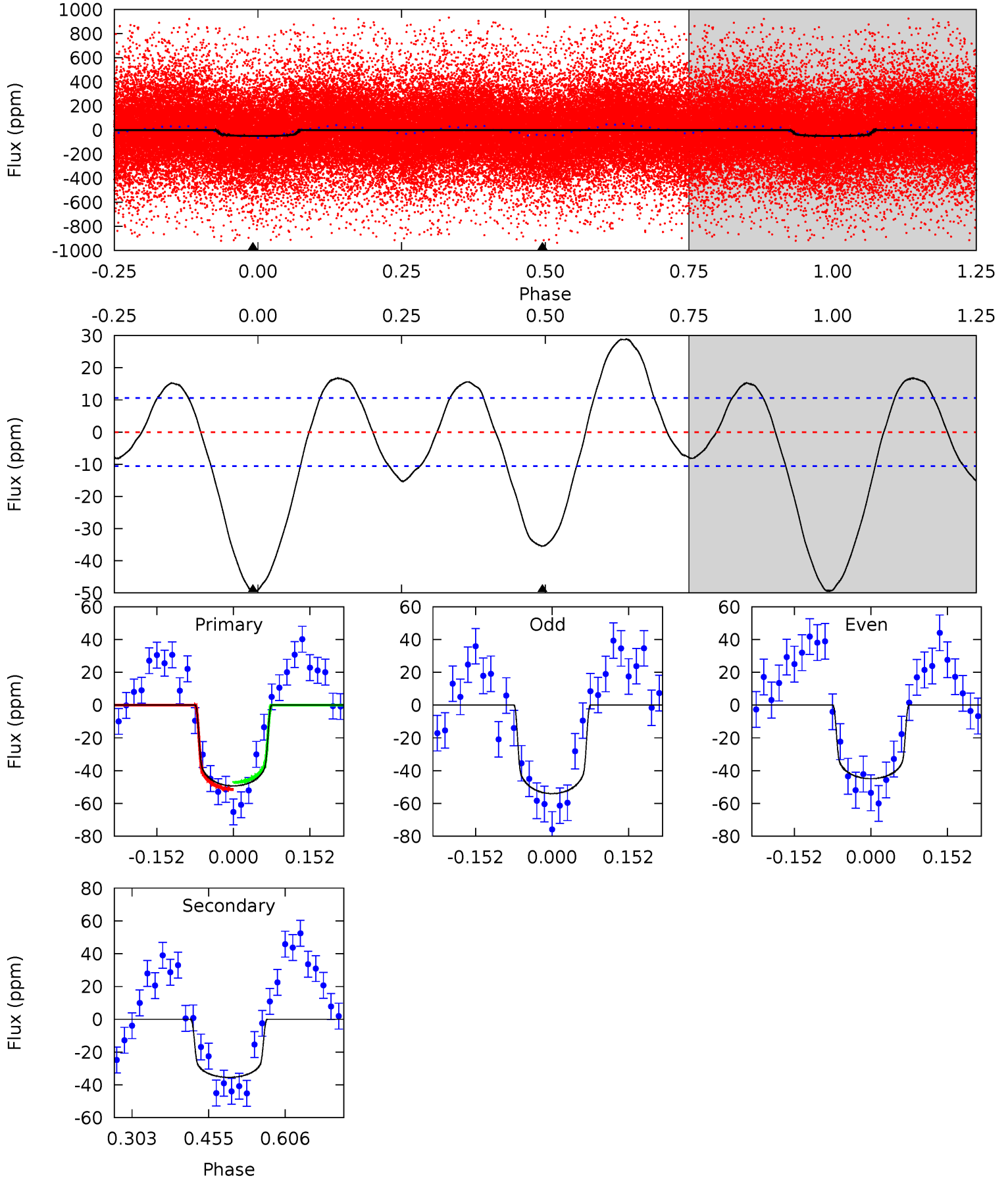
TCE 006522735-01 P= 2.536329 Days $T_0=132.285403$ (BKJD)



DV Model-Shift Uniqueness Test

006522735-01, P = 2.536471 Days, E = 129.728626 Days

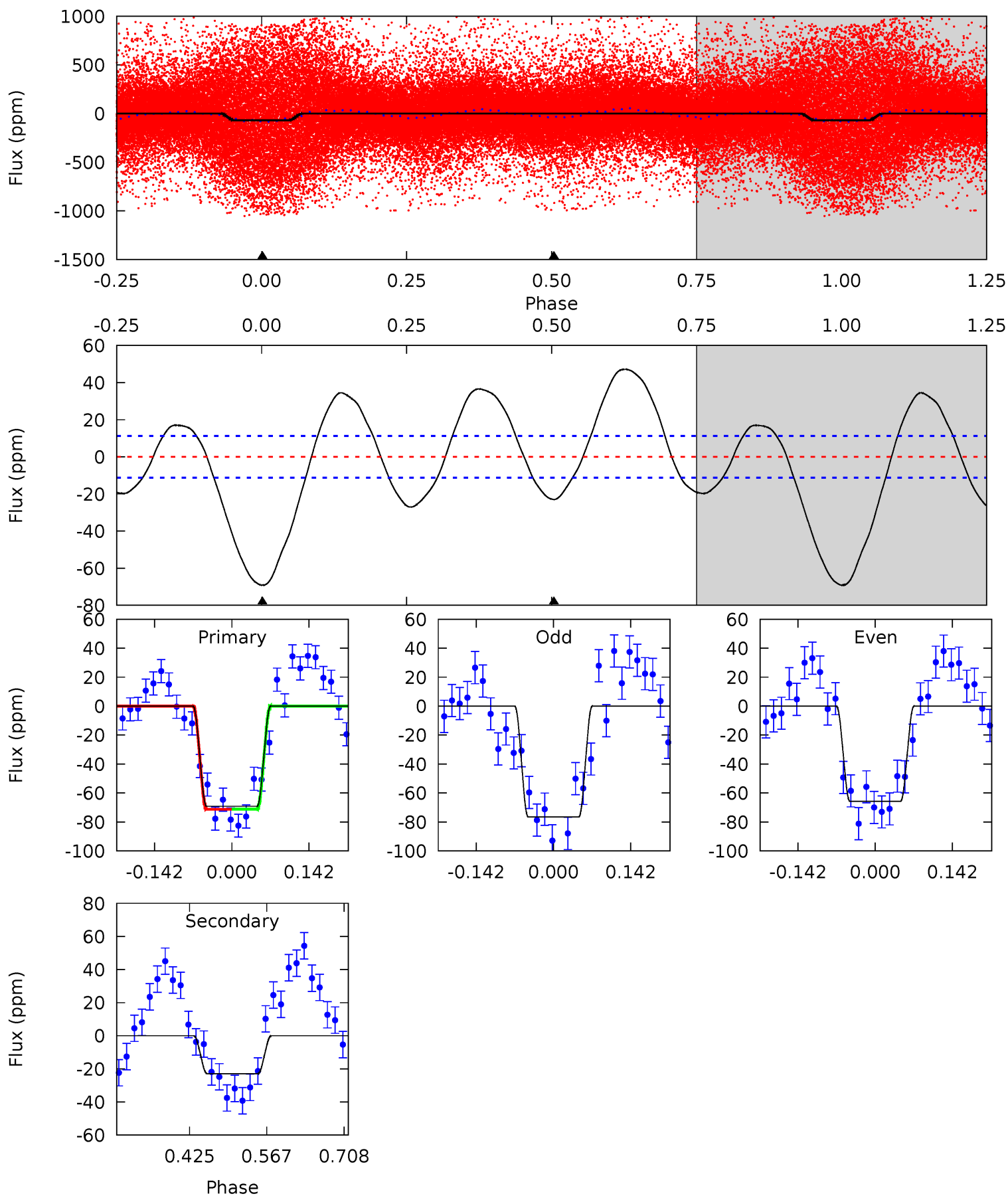
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.8	15.0	0	0	4.48	1.43	4.72	20.8	20.8	15.0	15.0	1.94	1.17	0.37	0.91



Alt Model-Shift Uniqueness Test

006522735-01, P = 2.536329 Days, E = 129.749074 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
27.7	9.20	0	0	4.49	1.47	8.13	27.7	27.7	9.20	9.20	2.15	1.00	0.41	0.01



Stellar Parameters For KIC 006522735

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7170^{+199}_{-274}	$4.101^{+0.180}_{-0.180}$	$-0.300^{+0.250}_{-0.350}$	$1.741^{+0.522}_{-0.475}$	$1.397^{+0.205}_{-0.228}$	$0.373^{+0.384}_{-0.177}$
	+3%/-4%	+4%/-4%	+83%/-117%	+30%/-27%	+15%/-16%	+103%/-47%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 006522735-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-35 ± 2	$1.26^{+0.24}_{-0.24}$	2890^{+222}_{-208}	6748^{+606}_{-513}	21^{+10}_{-6}
Alt.	-23 ± 2	$1.80^{+0.34}_{-0.28}$	2882^{+212}_{-217}	5040^{+305}_{-268}	$6.293^{+2.871}_{-1.698}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

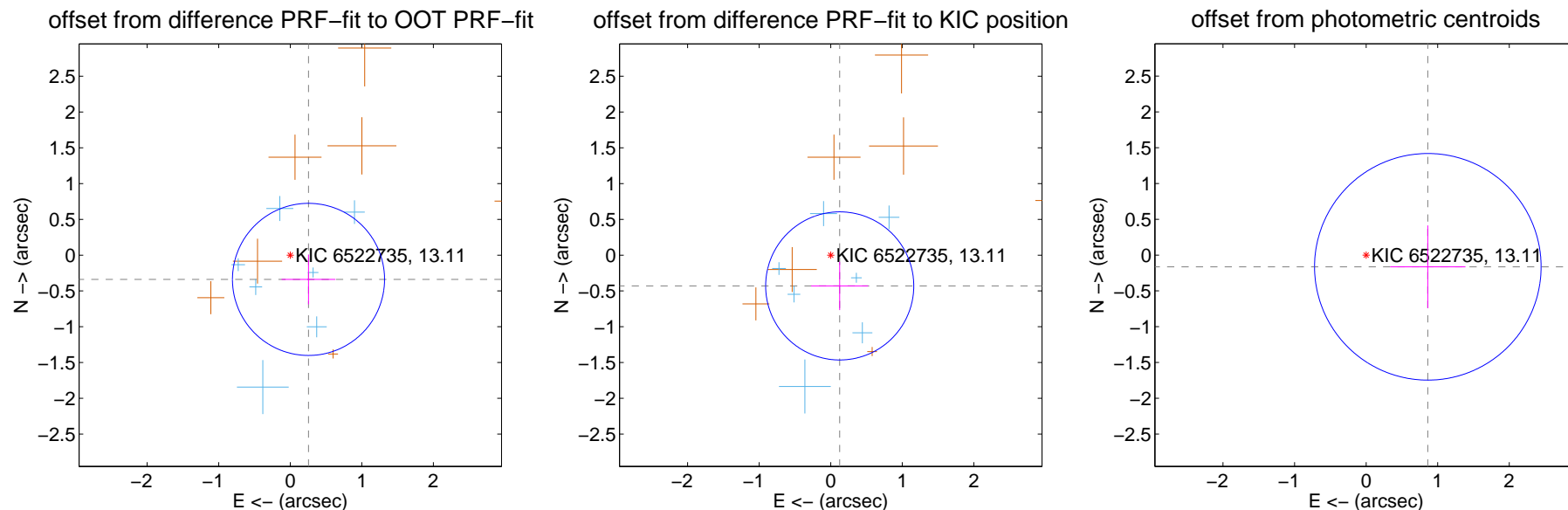
DV Centroid Data

Supplemental centroid analysis for 006522735-01. Kepler magnitude: 13.11. Transit SNR 8.91

There are 7 quarters with good PRF difference image offsets

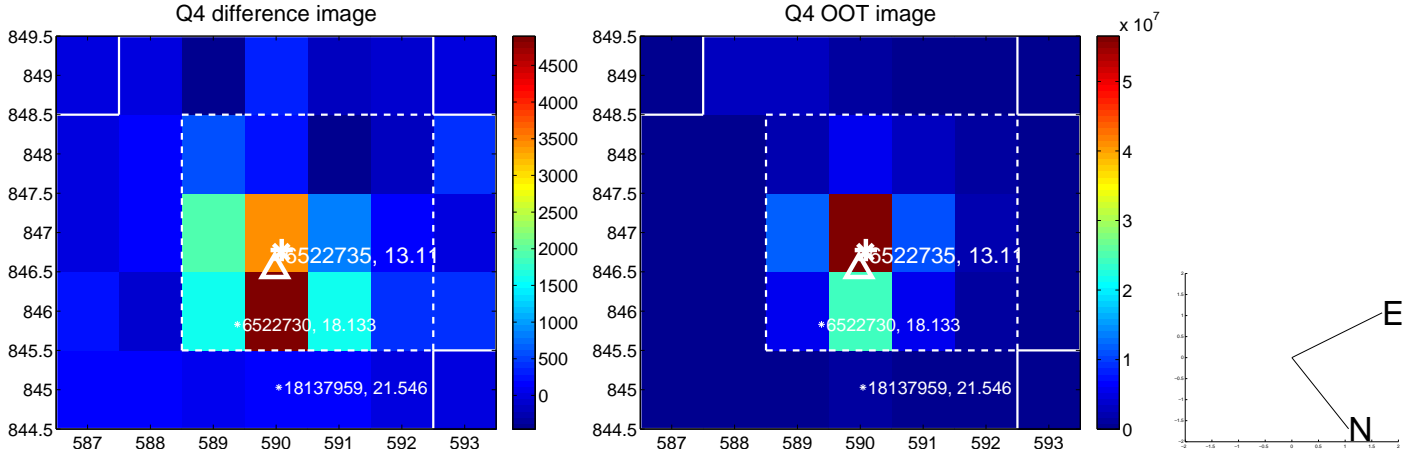
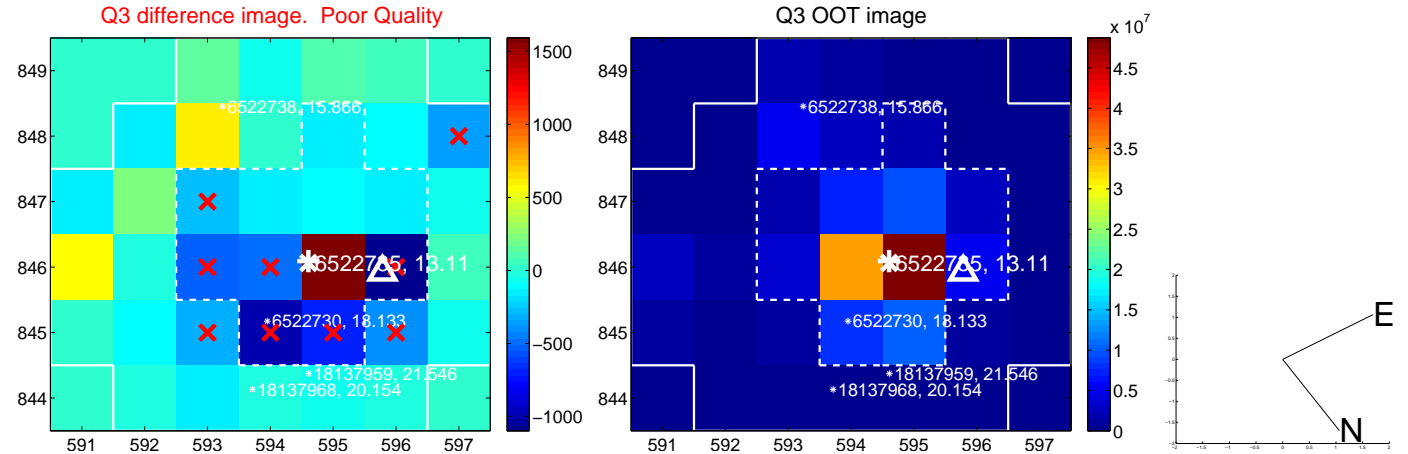
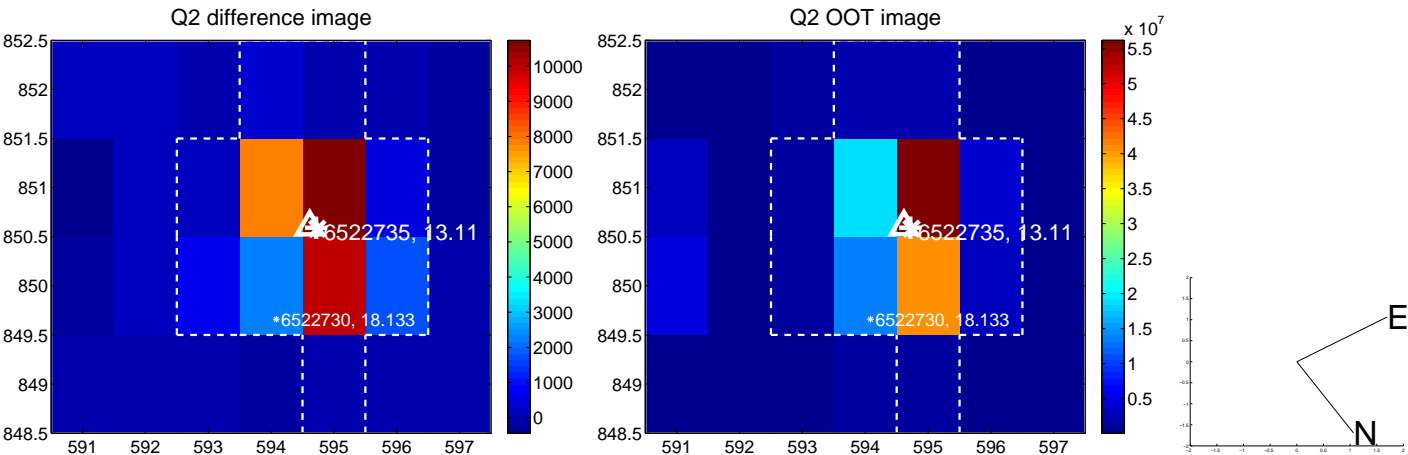
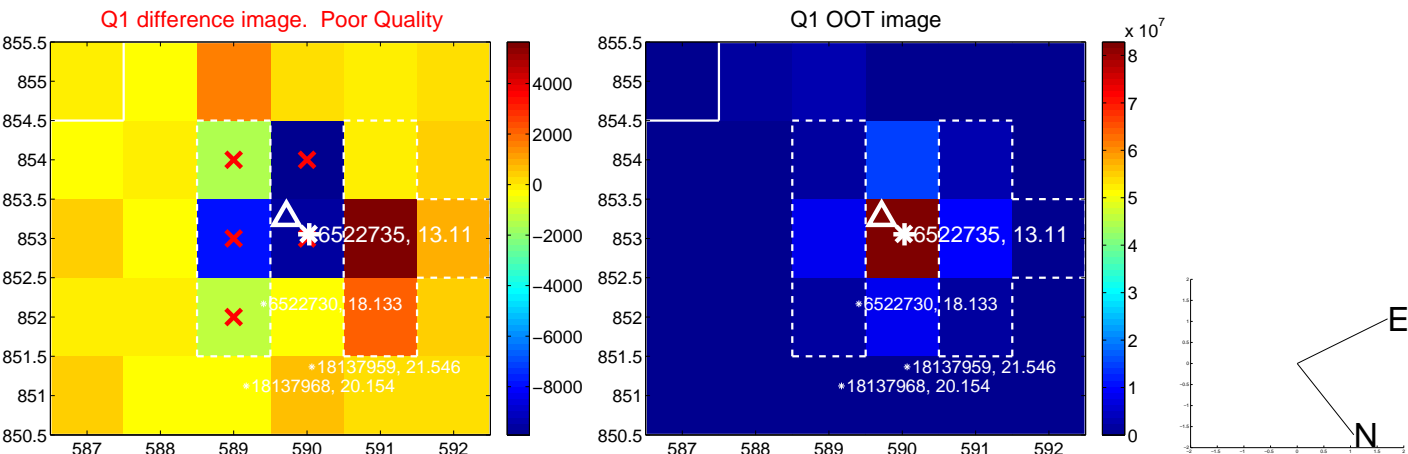
The direct PRF centroid is offset from the target star catalog position by about 0.02 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.424 ± 0.354	1.20	-0.255 ± 0.376	-0.339 ± 0.348
PRF-fit source offset from KIC position	0.448 ± 0.345	1.30	-0.126 ± 0.398	-0.430 ± 0.337
photometric centroid source offset	0.88 ± 0.53	1.66	-0.86 ± 0.53	-0.16 ± 0.58

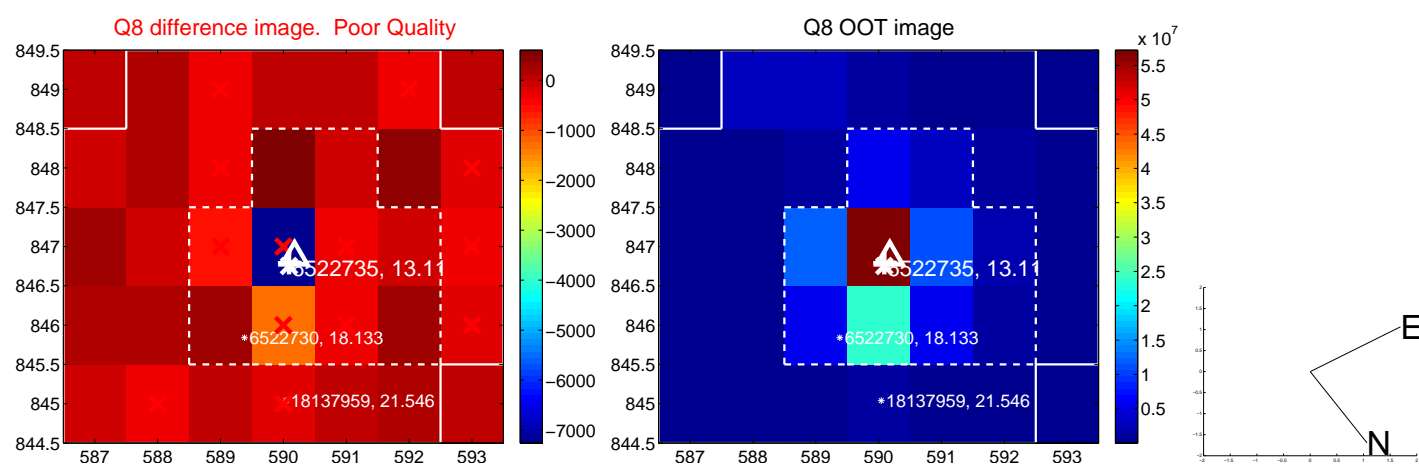
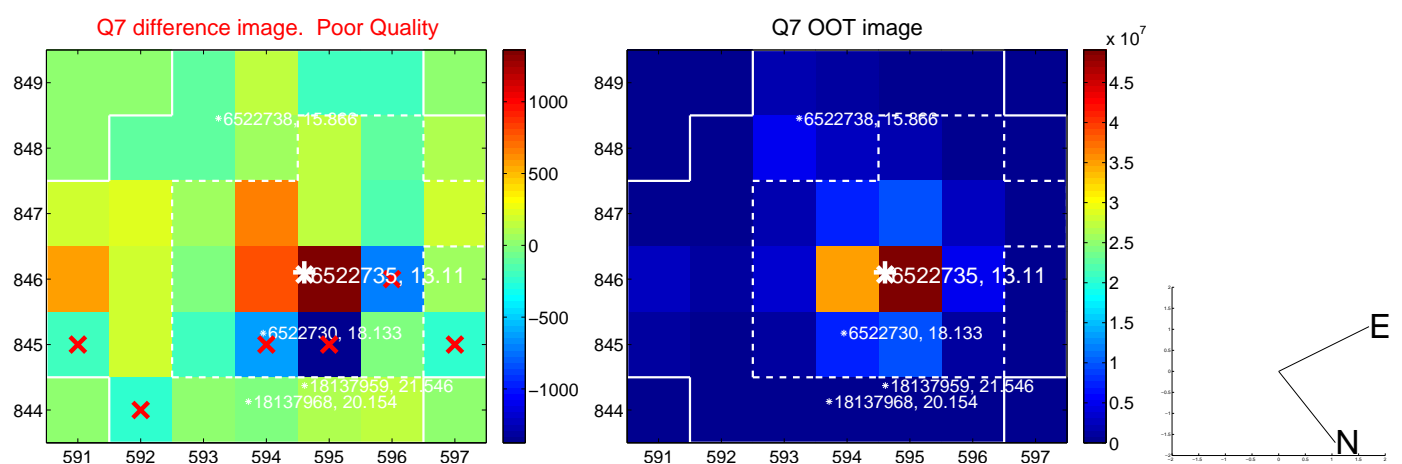
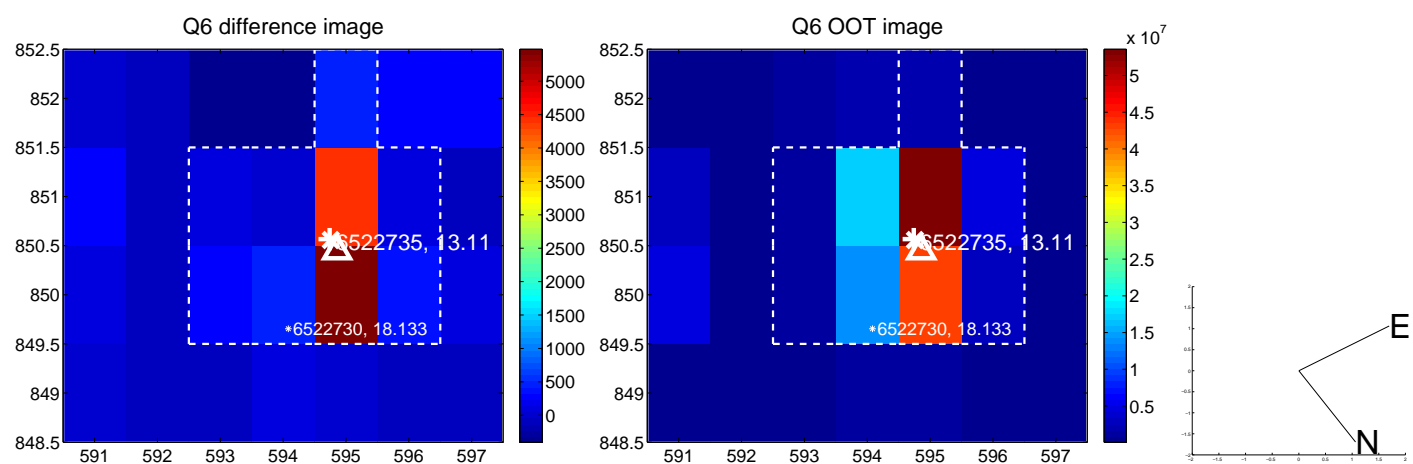
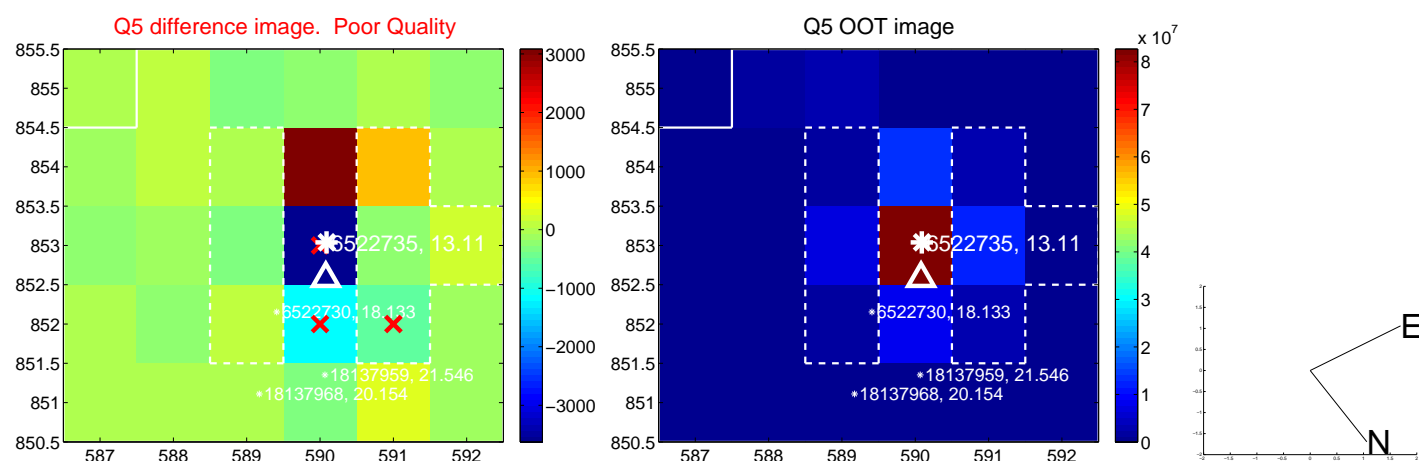


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

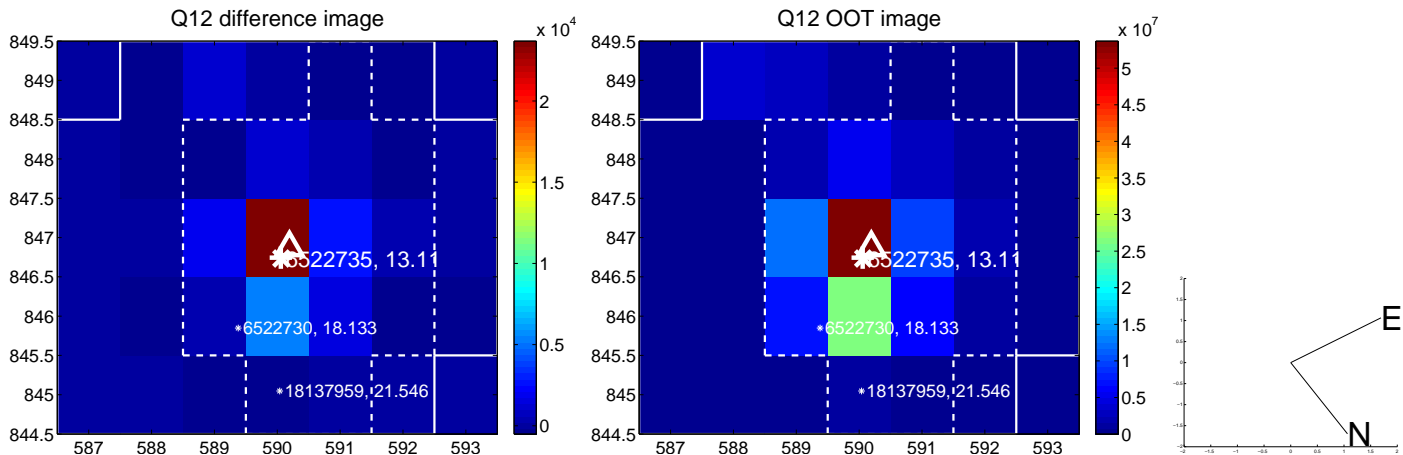
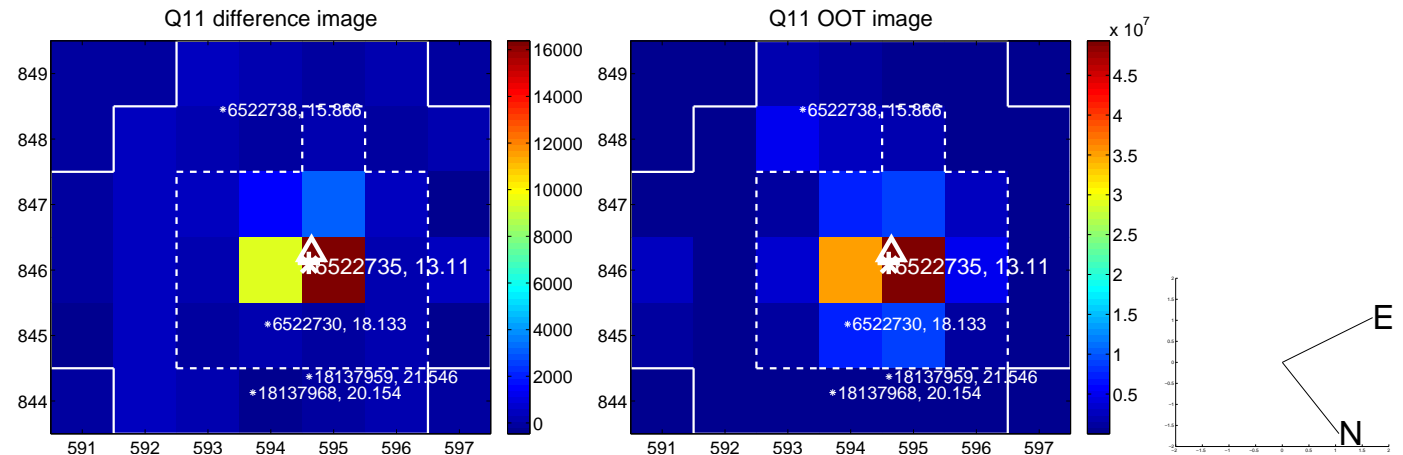
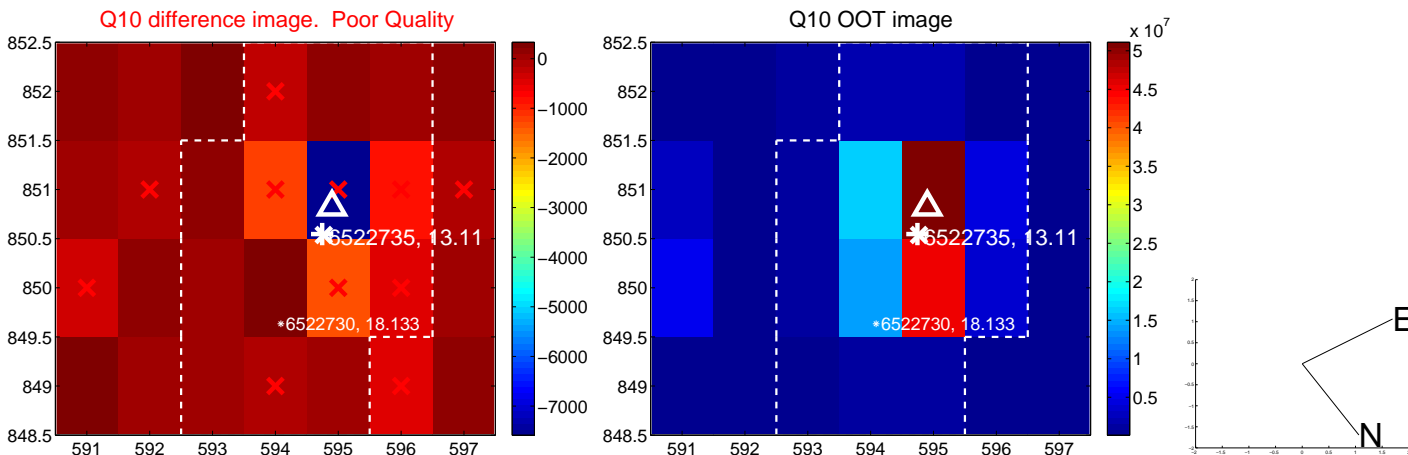
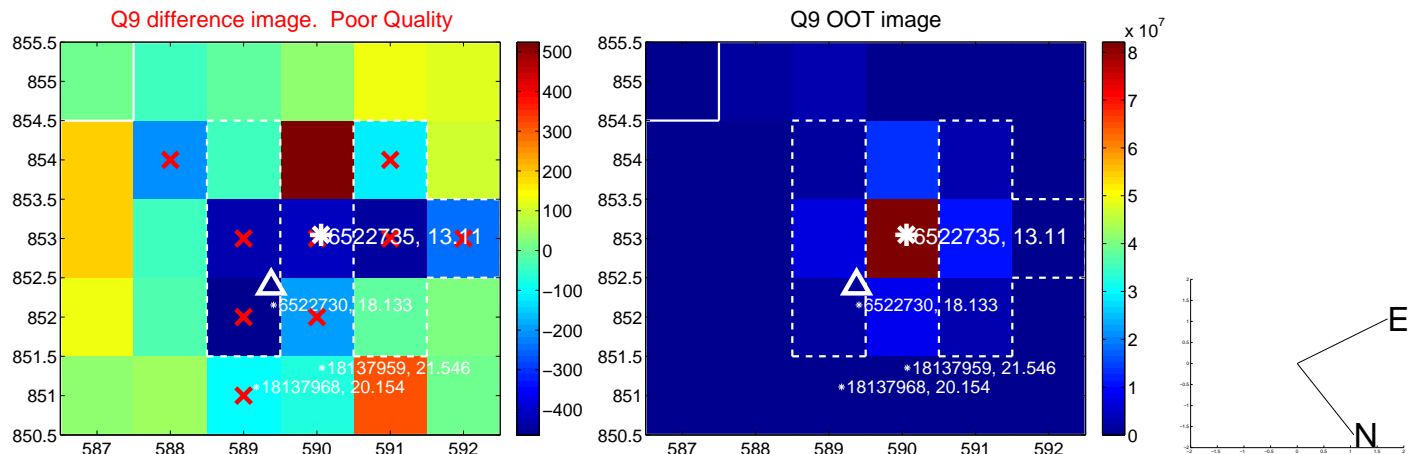
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



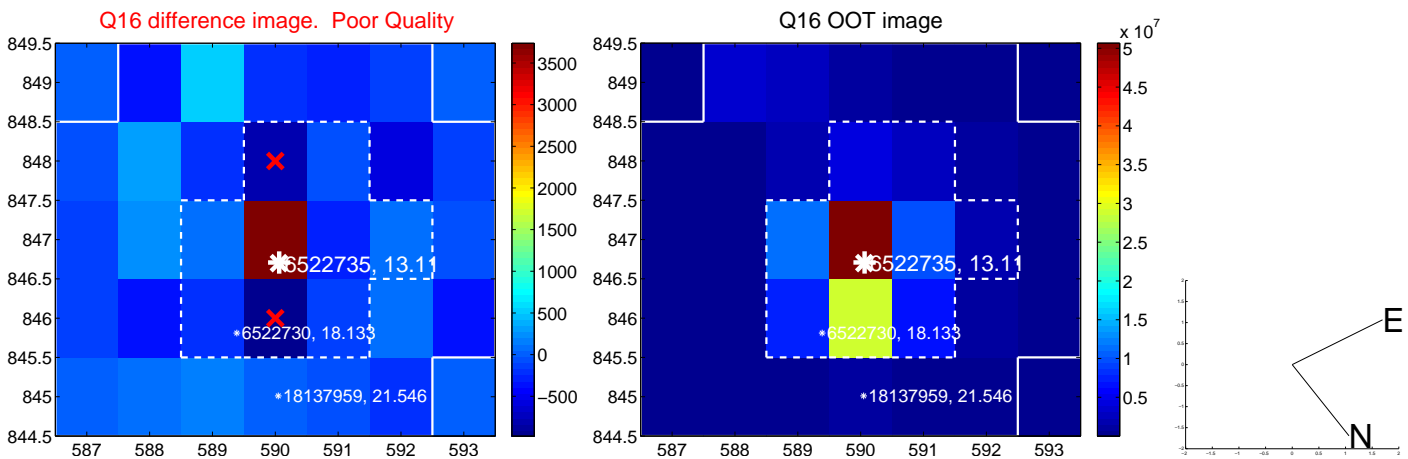
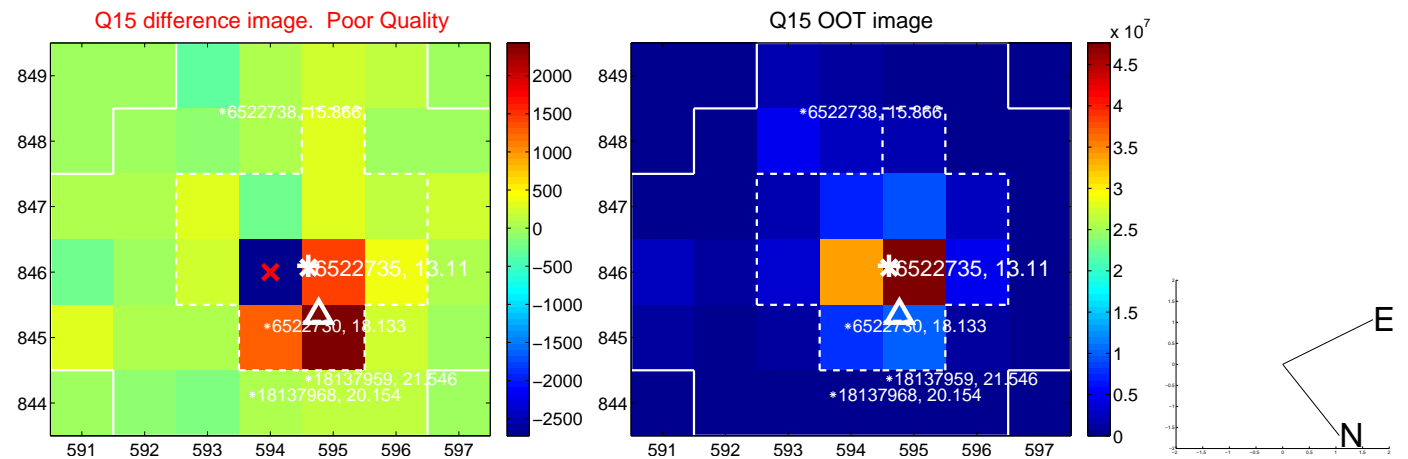
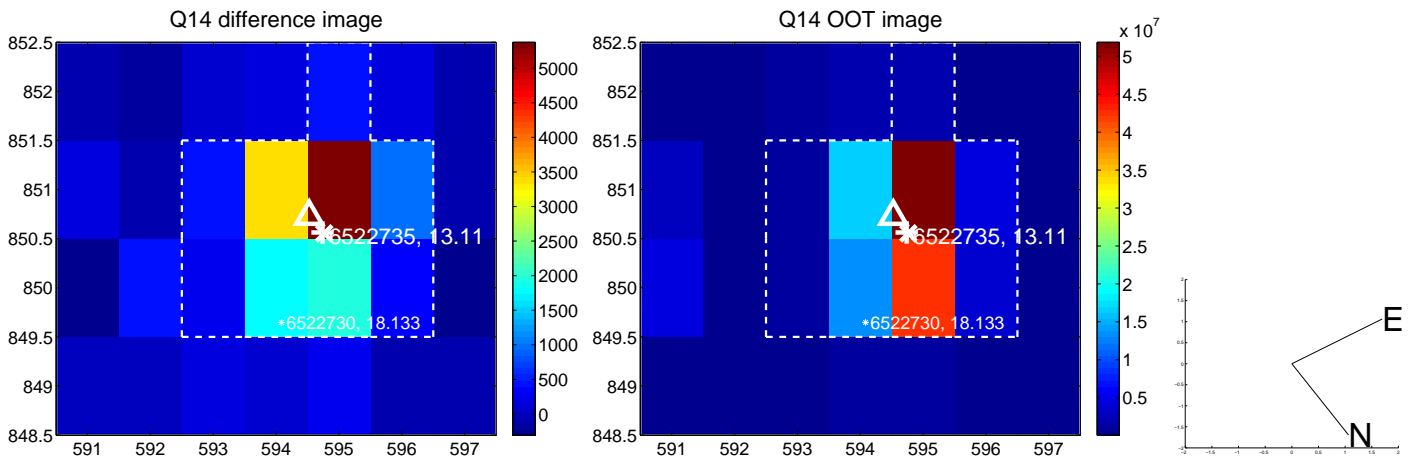
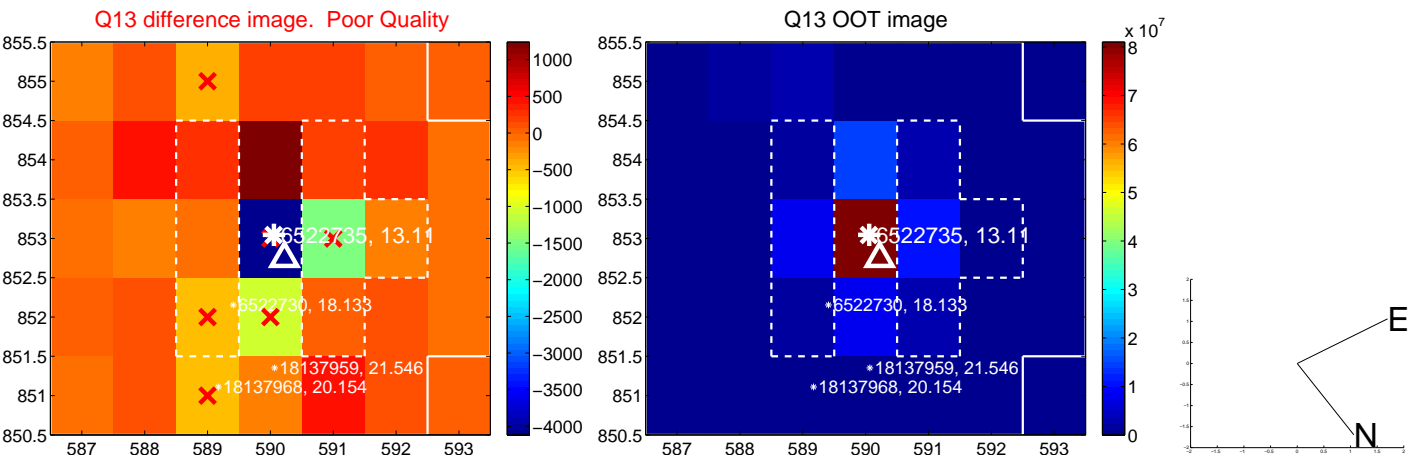
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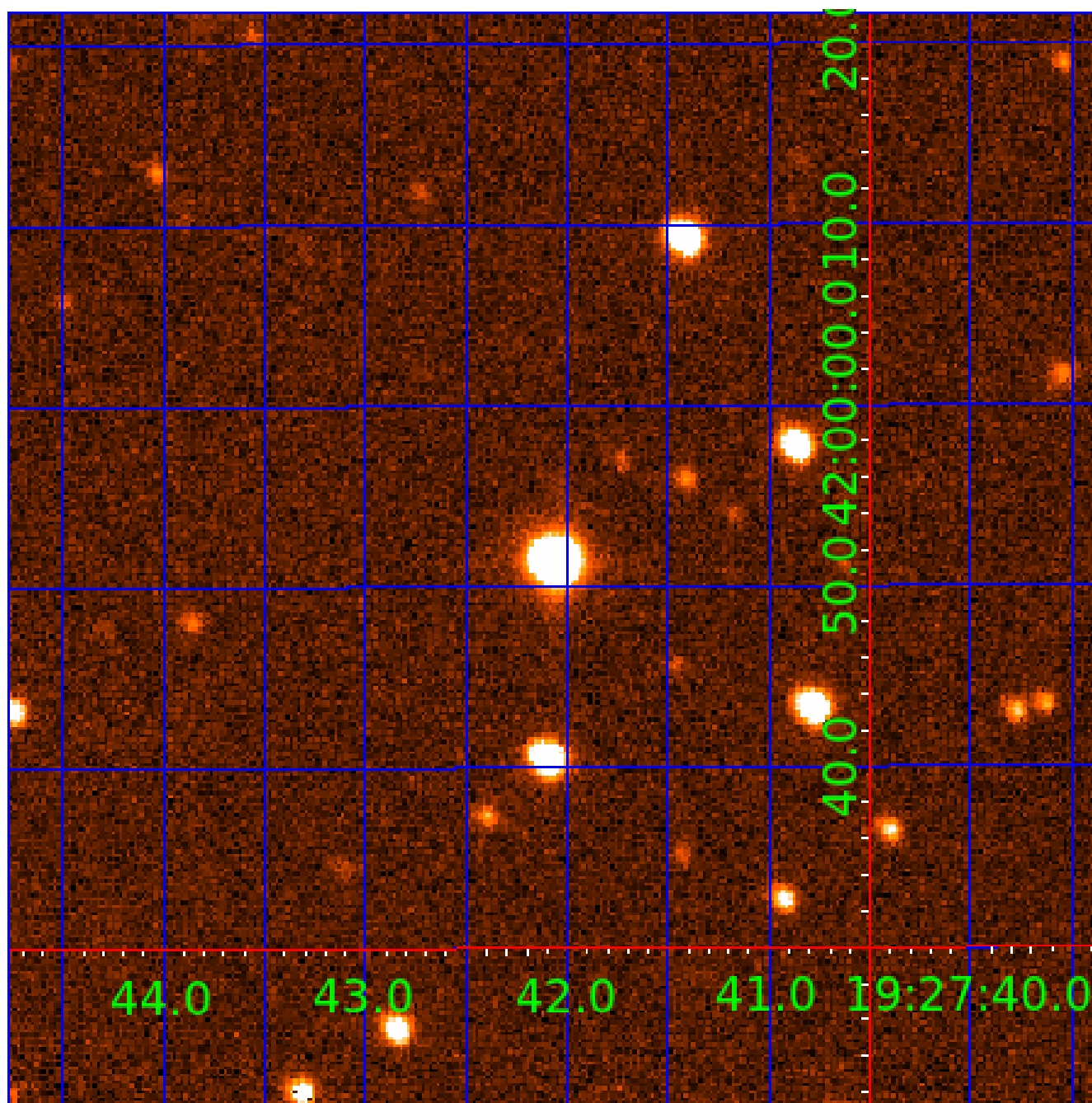


white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006522735

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
006522735-01	OBS	No	2.536471	132.265097	36.7	8.777	10.1	8.9	1.74	7170	1.25	4337.07
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Robovetter Results

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006522735-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
006522735-02	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—SAME_NTL_PERIOD
006522735-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
006522735-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
006522735-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
006522735-08	OBS	FP	0.00	1	0	1	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—HALO_GHOST
006522735-09	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

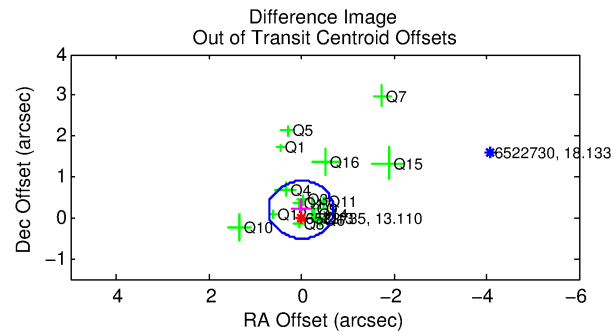
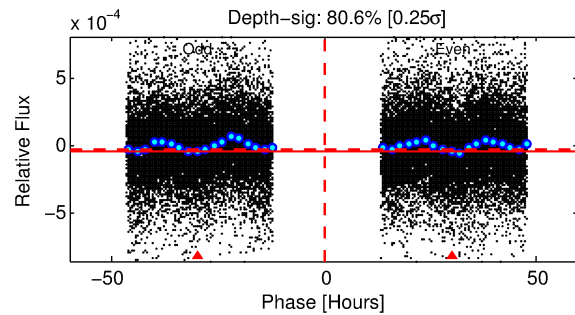
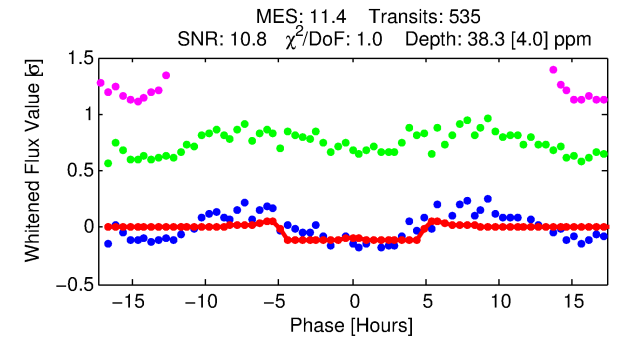
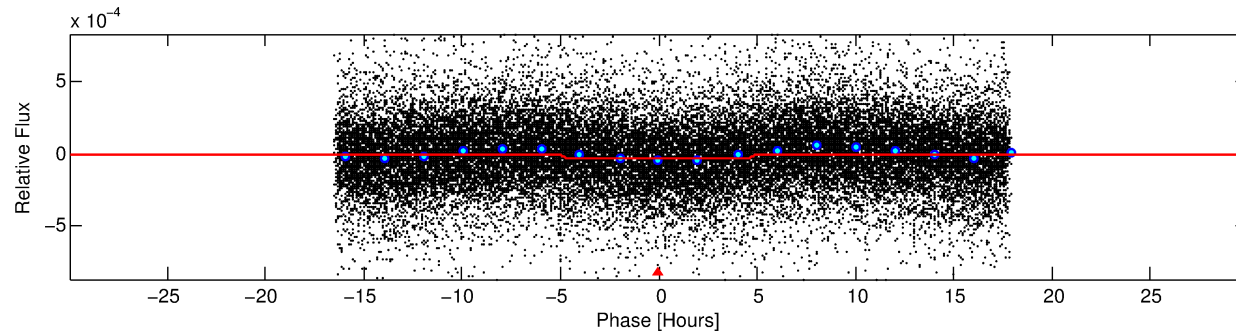
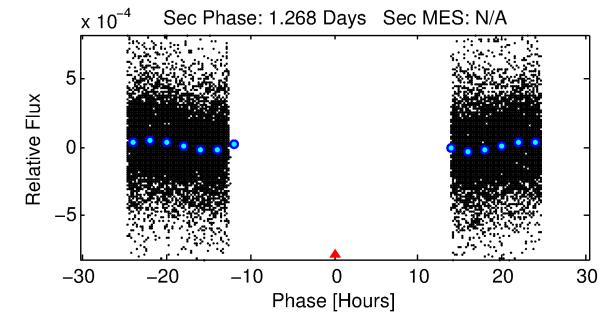
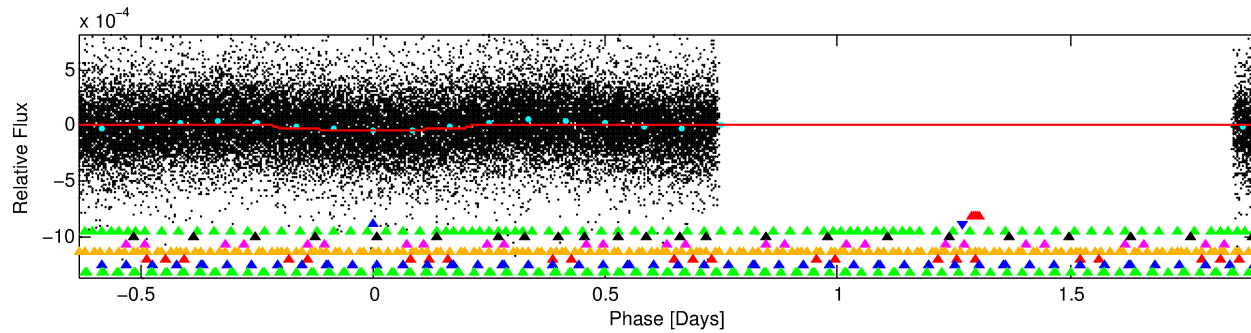
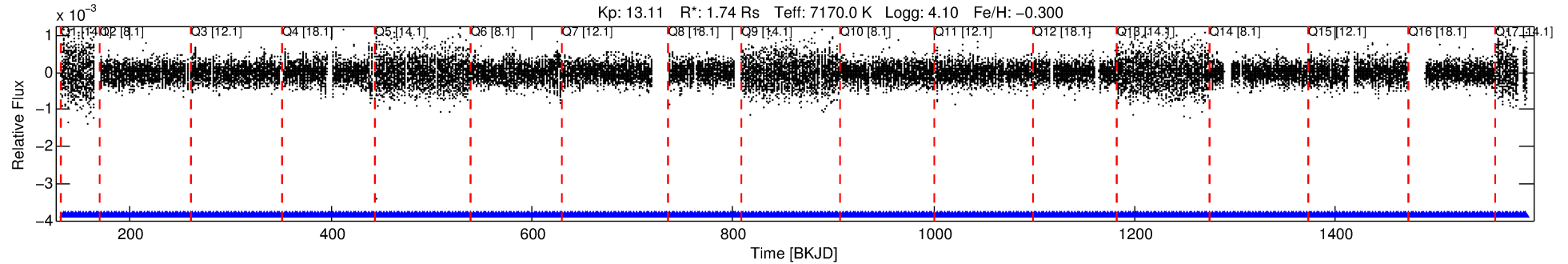
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006522735-02

No Significant Match Found

DV One-Page Summary

KIC: 6522735 Candidate: 2 of 9 Period: 2.536 d



DV Fit Results:

Period = 2.53644 [0.00002] d
Epoch = 133.5132 [0.0051] BKJD
Rp/R* = 0.0061 [0.0013]
a/R* = 1.62 [1.33]
b = 0.70 [0.96]
Seff = 4337.15 [1620.88]
Teq = 2069 [193] K
Rp = 1.15 [0.43] Re
a = 0.0407 [0.0099] AU

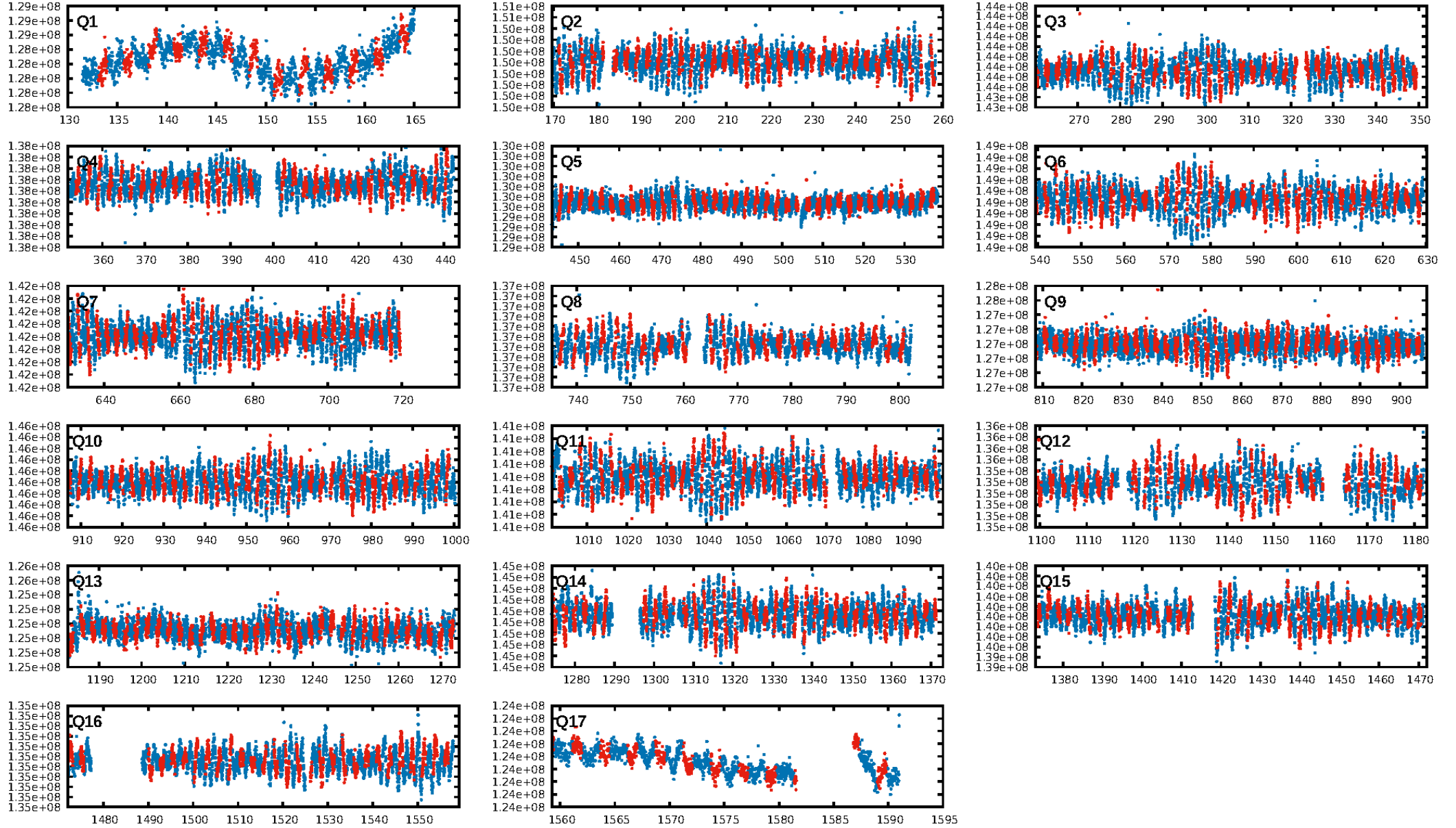
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 7.10e-88
RollingBand-fgt: 1.00 [512/512]
GhostDiagnostic-chr: 2.145
Centroid-sig: 25.3%
Centroid-so: 0.503 arcsec [1.06σ]
OotOffset-rm: 0.196 arcsec [0.84σ]
KicOffset-rm: 0.141 arcsec [0.64σ]
OotOffset-st: 3/4/4/5 [16]
KicOffset-st: 3/4/4/5 [16]
DiffImageQuality-fgm: 0.50 [8/16]
DiffImageOverlap-fno: 1.00 [17/17]

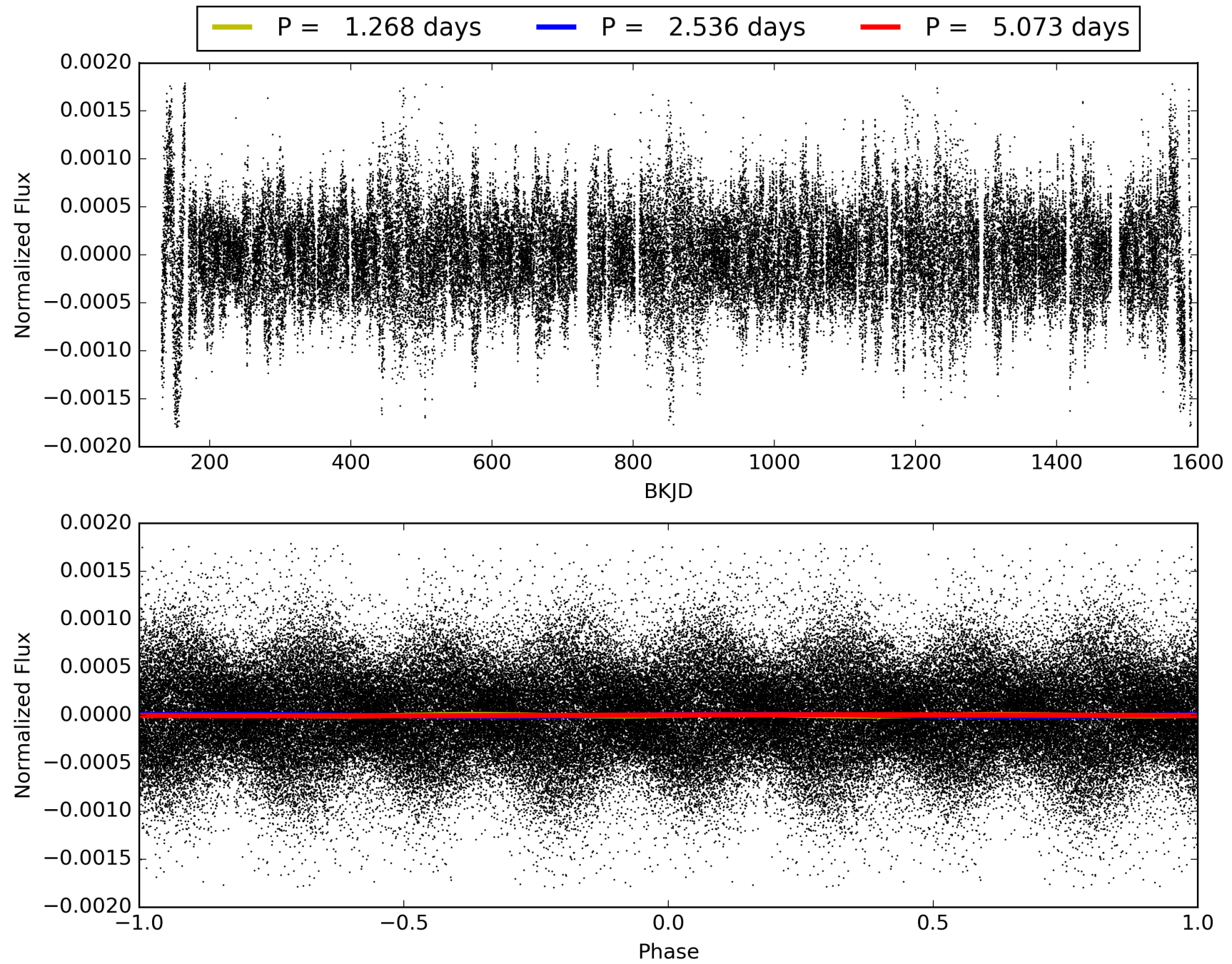
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 08:44:08 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006522735-02, PDC Light Curves

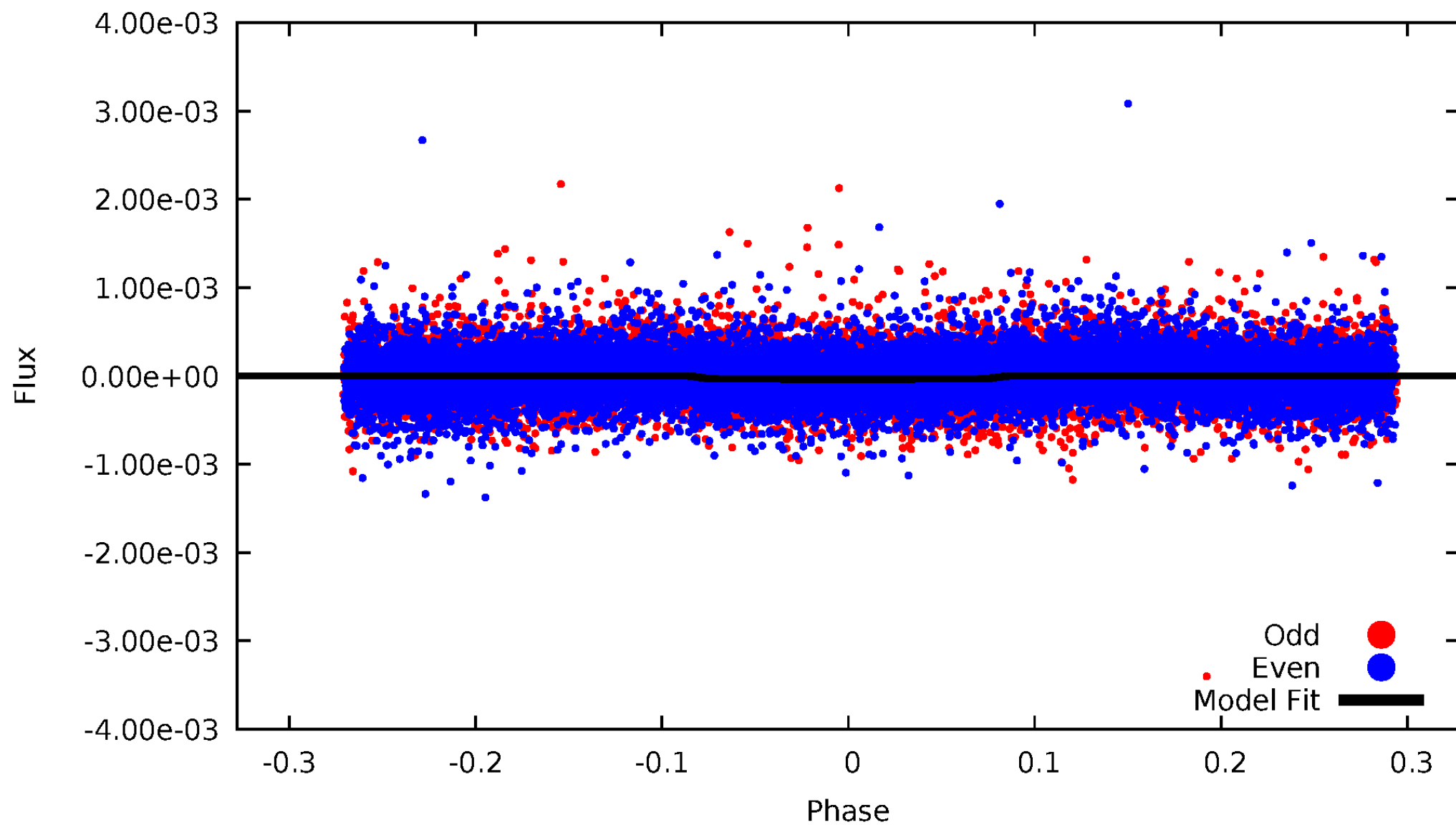


TCE 006522735-02



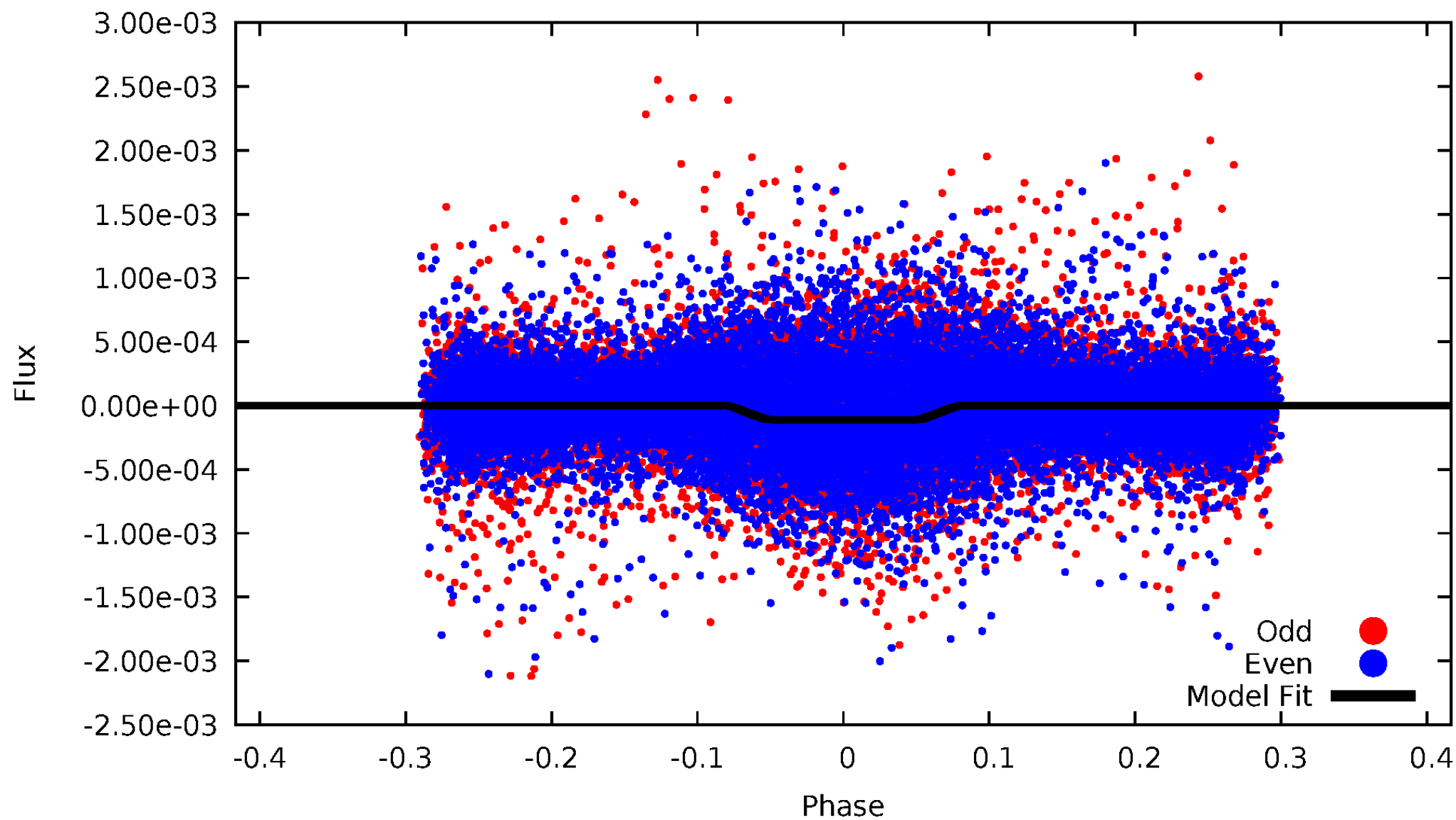
DV Odd/Even

TCE 006522735-02



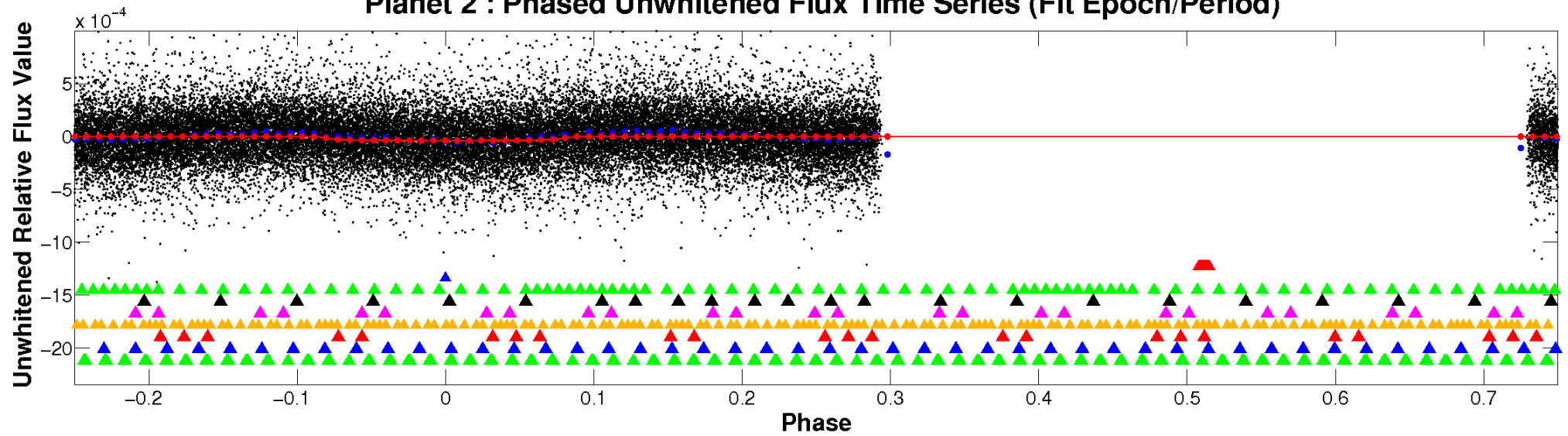
ALT Odd/Even

TCE 006522735-02

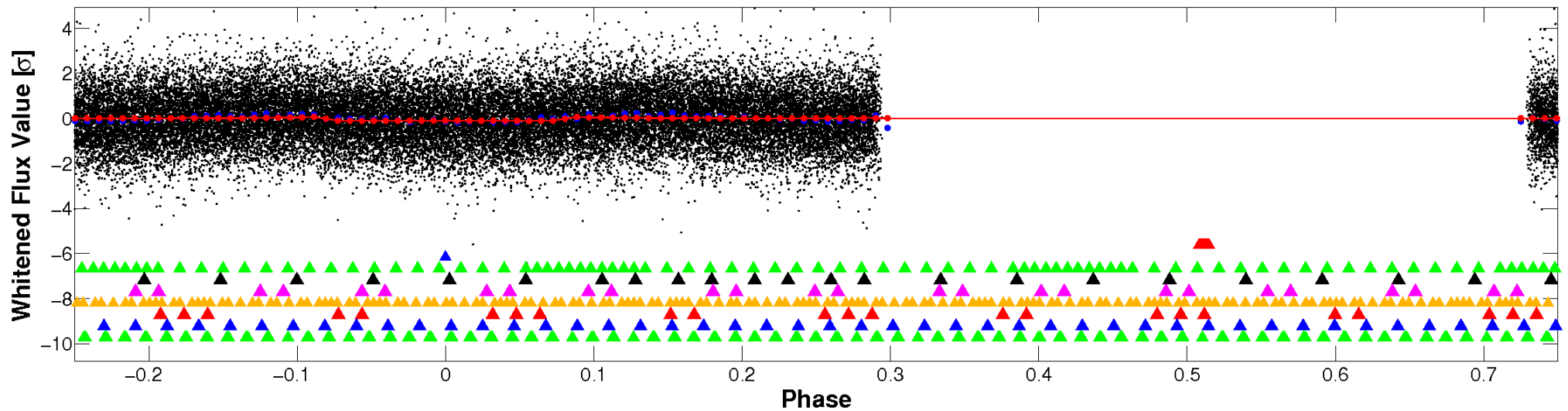


Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

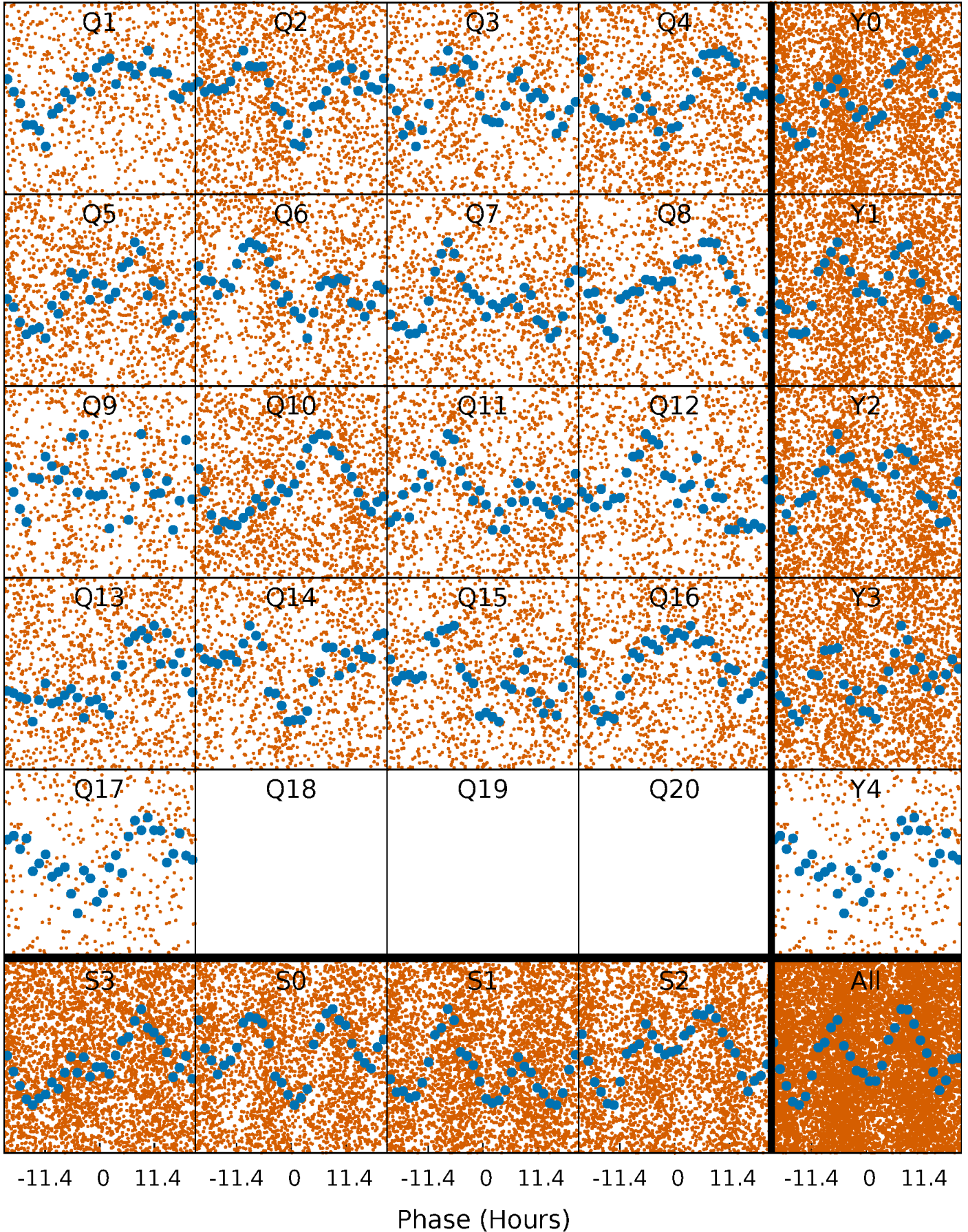


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



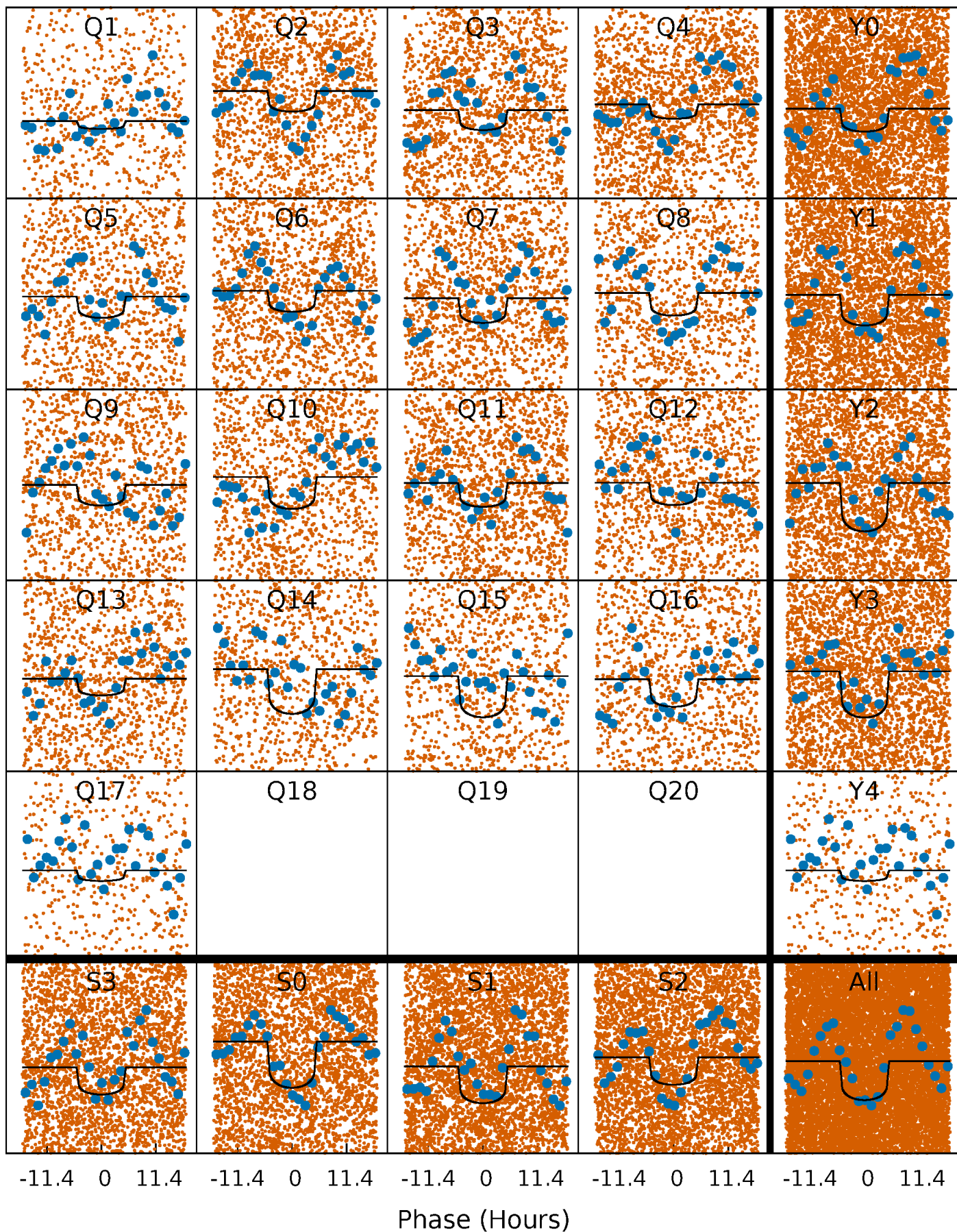
PDC Quarter-Phased Transit Curves

TCE 006522735-02 P= 2.536440 Days $T_0=133.513238$ (BKJD)



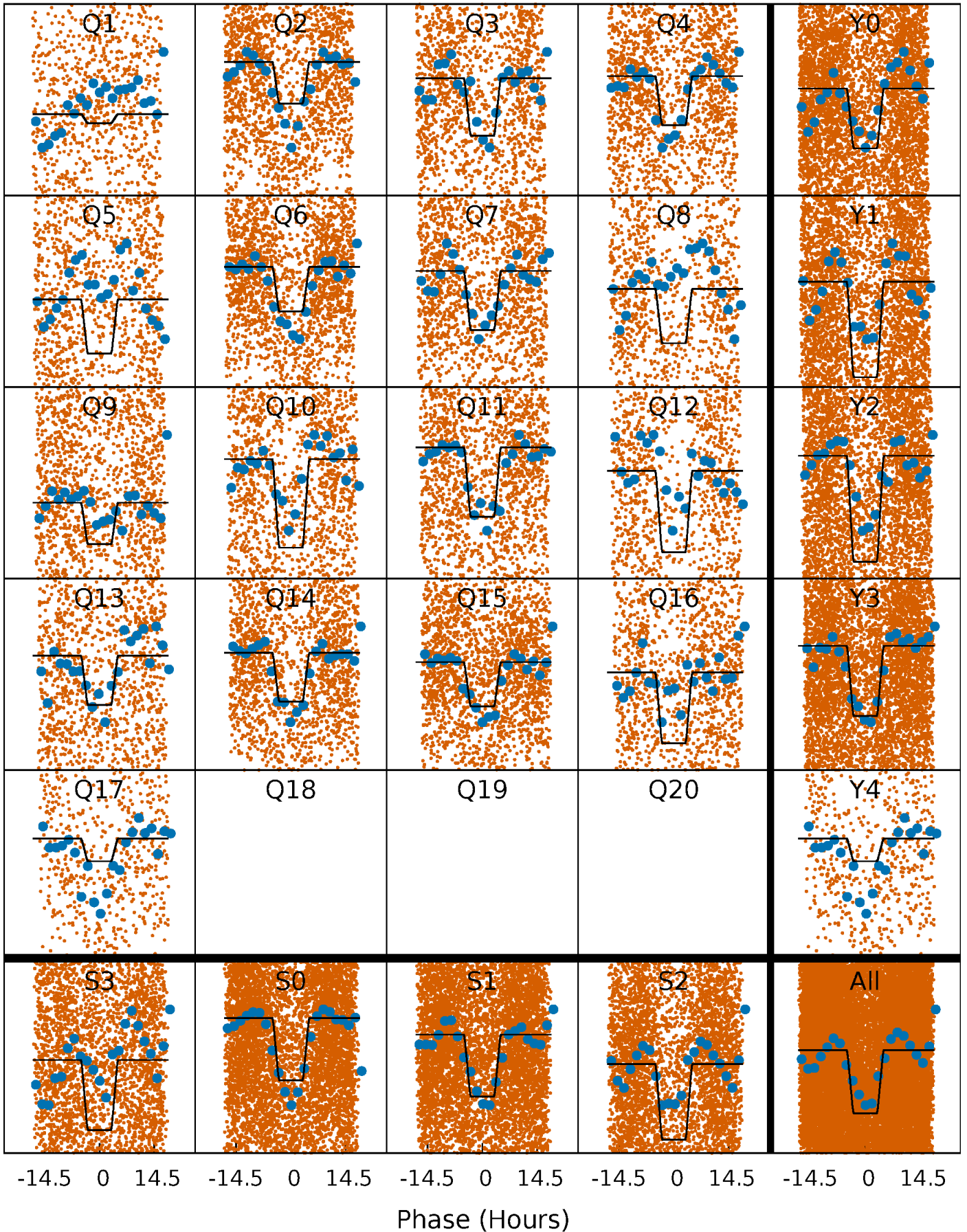
DV Quarter-Phased Transit Curves

TCE 006522735-02 $P = 2.536440$ Days $T_0 = 133.513238$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

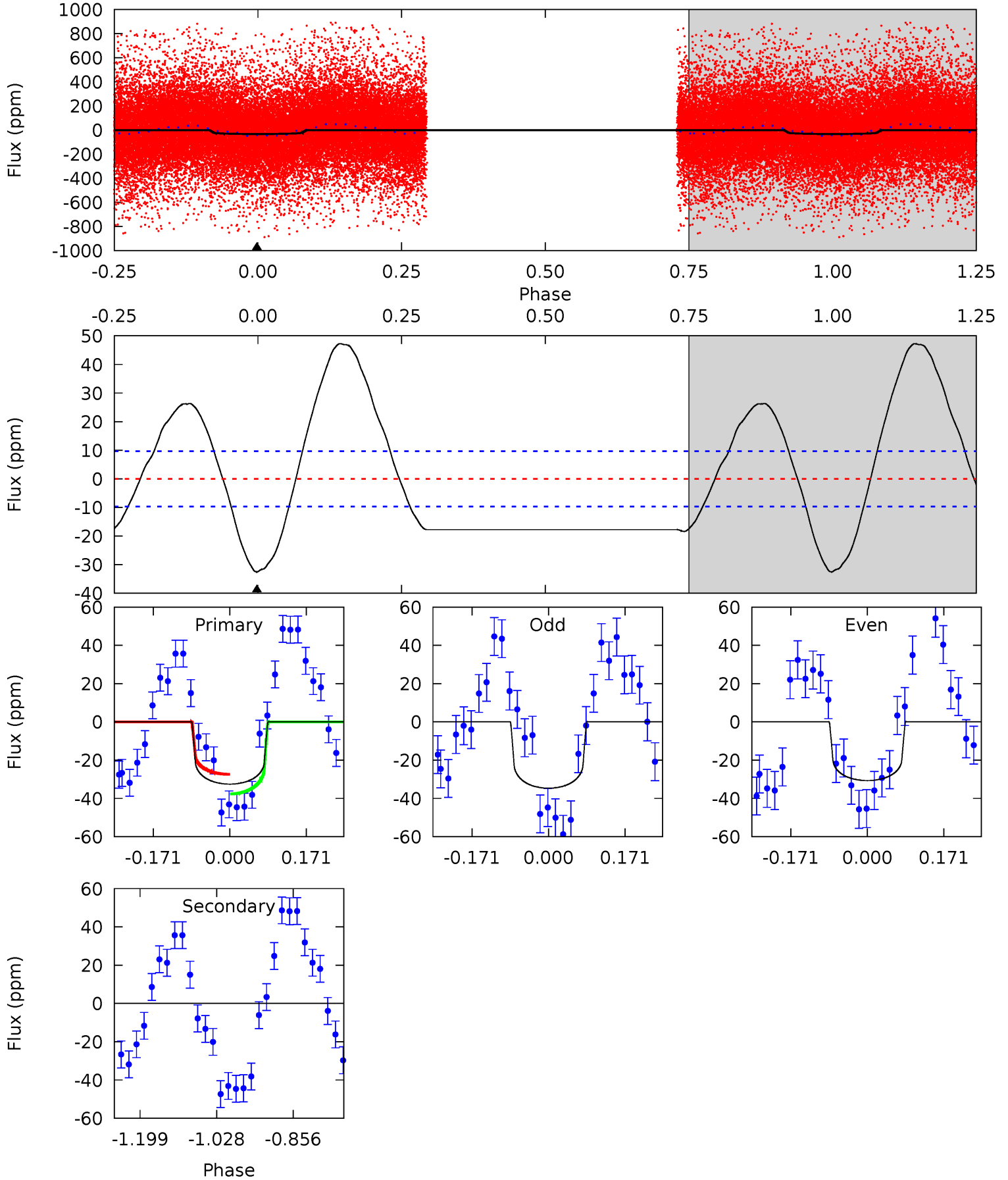
TCE 006522735-02 P= 2.536329 Days $T_0=133.562864$ (BKJD)



DV Model-Shift Uniqueness Test

006522735-02, P = 2.536440 Days, E = 130.976798 Days

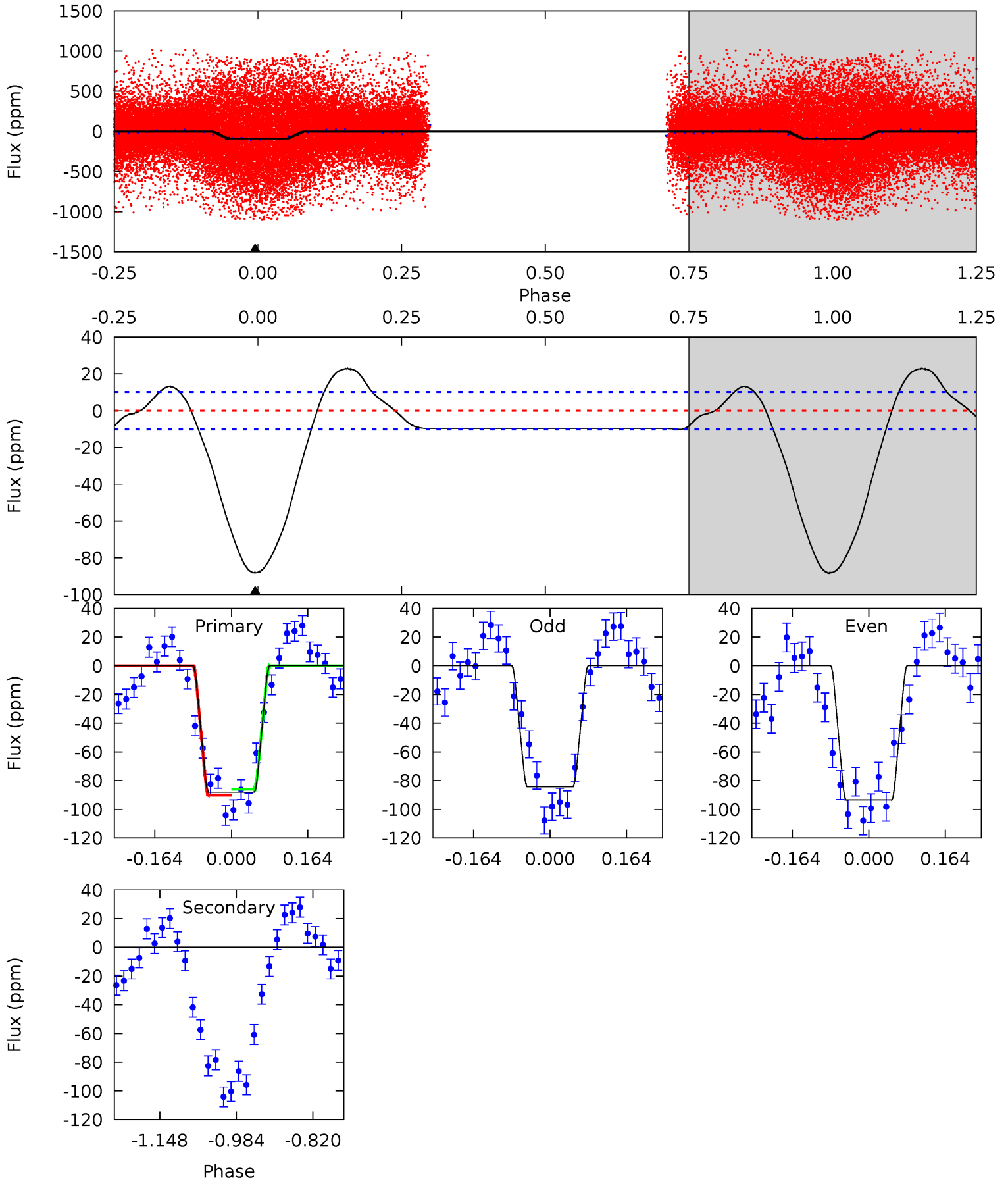
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.0	0	0	0	4.45	1.37	8.16	15.0	15.0	0	0	0.92	0.78	0.59	2.39



Alt Model-Shift Uniqueness Test

006522735-02, P = 2.536329 Days, E = 131.026535 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
38.4	0	0	0	4.46	1.39	4.08	38.4	38.4	0	0	2.01	0.85	0.21	0.73



Stellar Parameters For KIC 006522735

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7170^{+199}_{-274}	$4.101^{+0.180}_{-0.180}$	$-0.300^{+0.250}_{-0.350}$	$1.741^{+0.522}_{-0.475}$	$1.397^{+0.205}_{-0.228}$	$0.373^{+0.384}_{-0.177}$
	+3%/-4%	+4%/-4%	+83%/-117%	+30%/-27%	+15%/-16%	+103%/-47%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 006522735-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 2	$1.16^{+0.34}_{-0.31}$	2893^{+221}_{-199}	-2932^{+6670}_{-1031}	$0.058^{+1.544}_{-1.512}$
Alt.	0 ± 2	$2.02^{+0.40}_{-0.39}$	2892^{+219}_{-214}	-3030^{+5865}_{-472}	$-0.007^{+0.496}_{-0.472}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

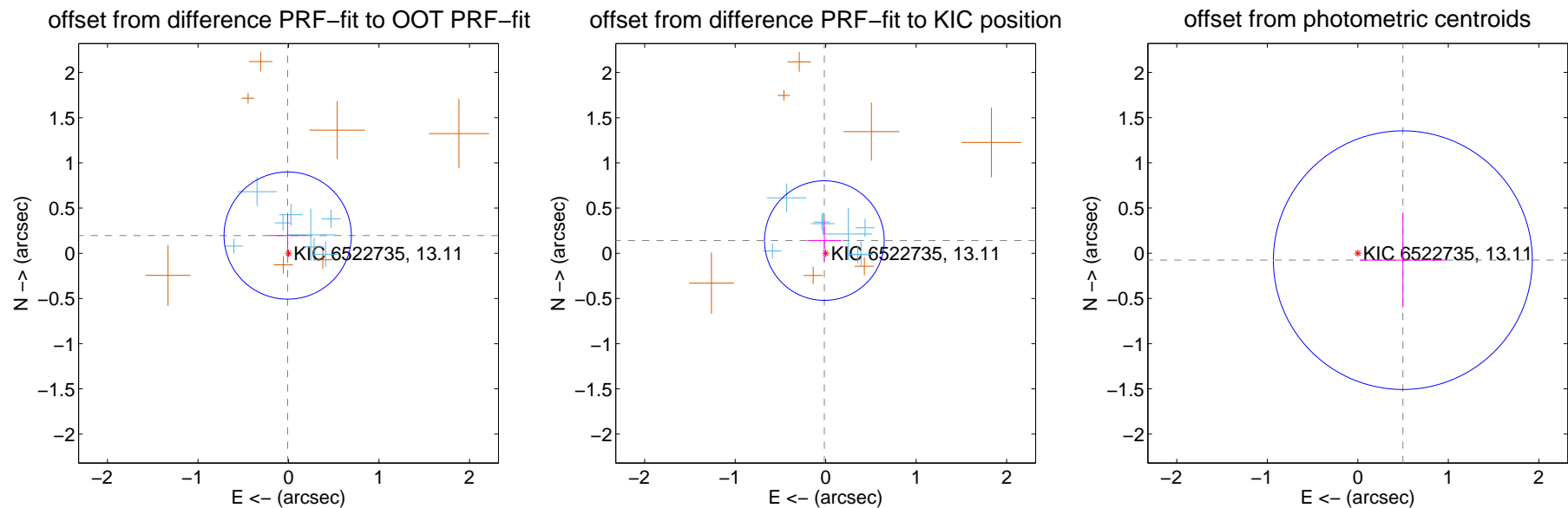
DV Centroid Data

Supplemental centroid analysis for 006522735-02. Kepler magnitude: 13.11. Transit SNR 10.83

There are 8 quarters with good PRF difference image offsets

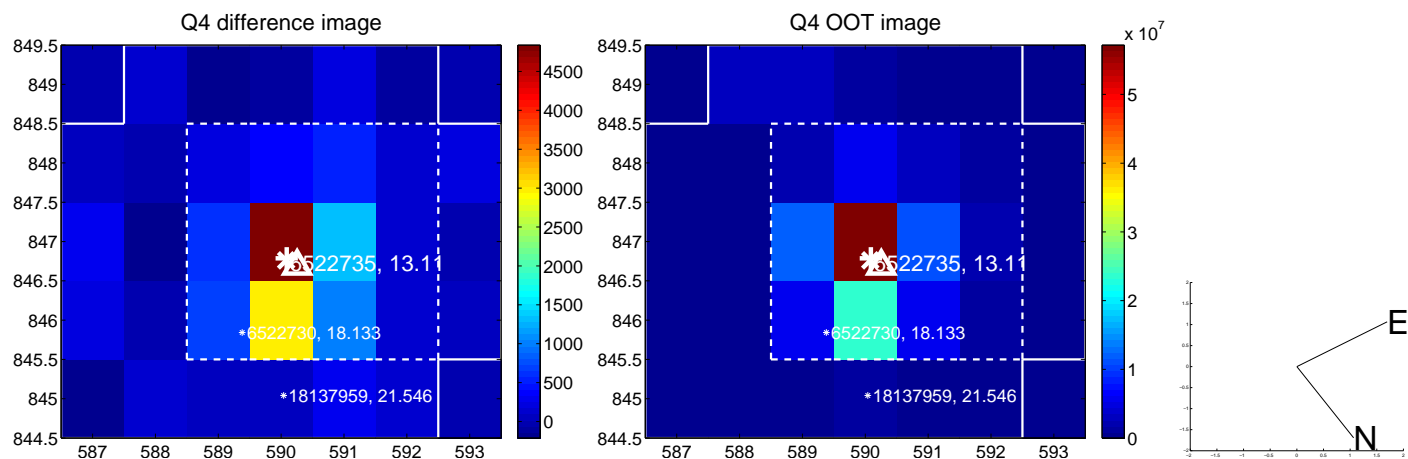
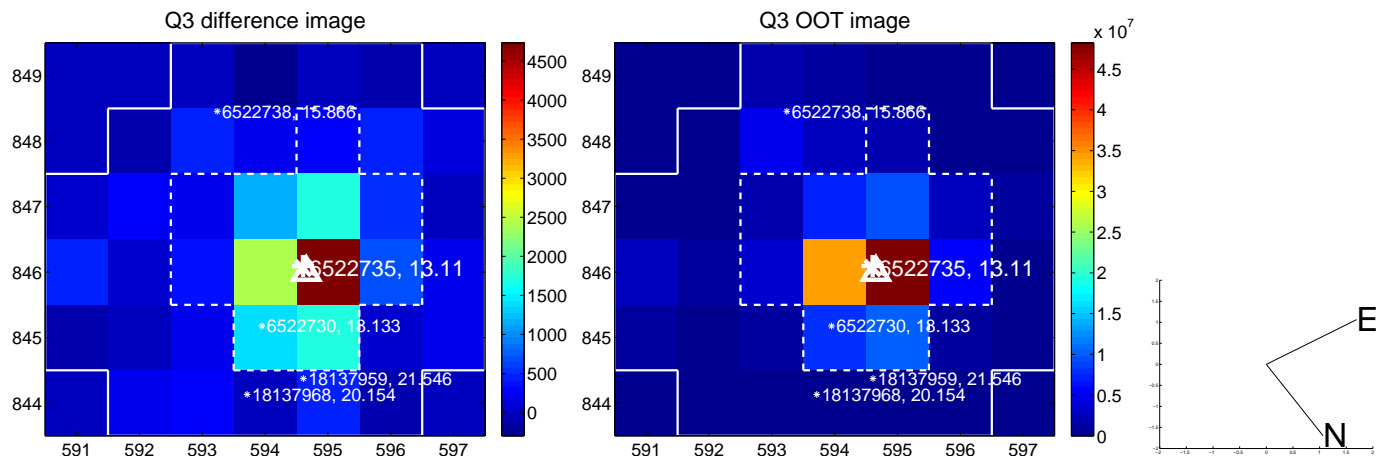
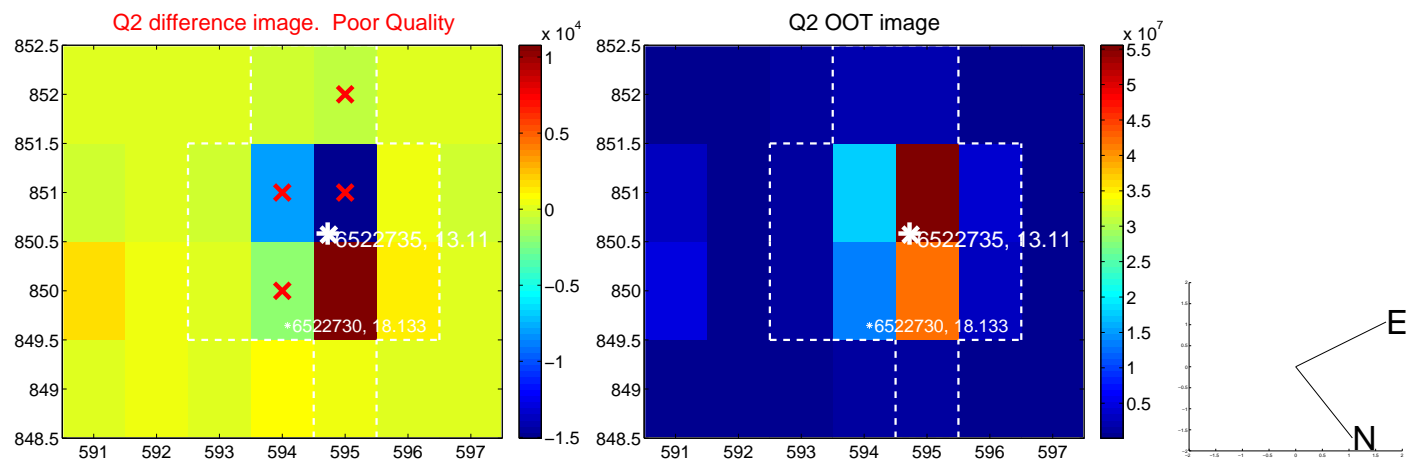
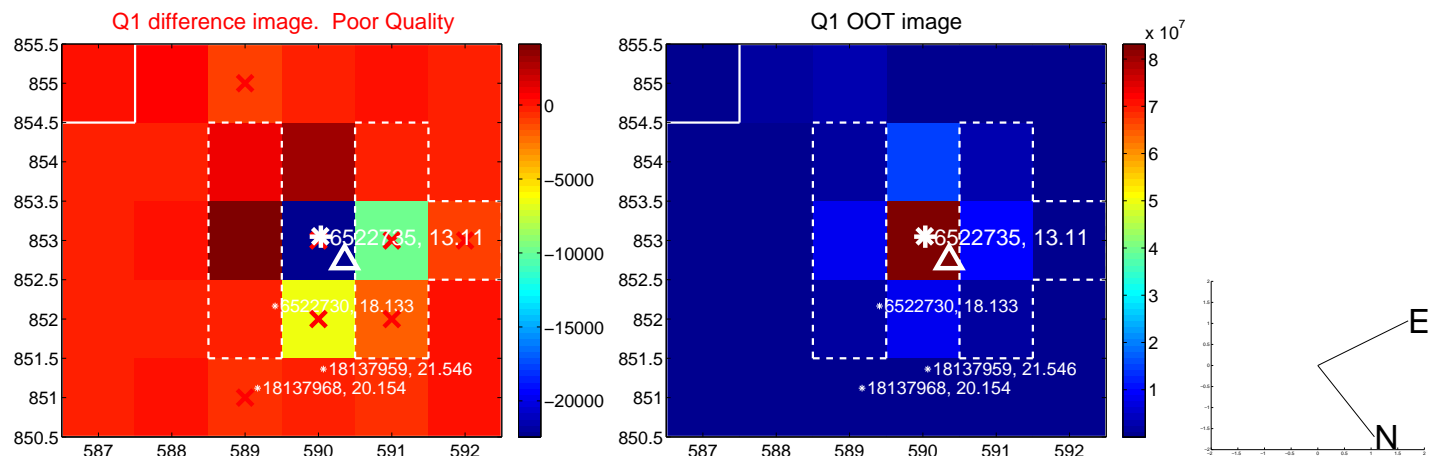
The direct PRF centroid is offset from the target star catalog position by about 0.02 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.196 ± 0.235	0.84	0.009 ± 0.203	0.196 ± 0.239
PRF-fit source offset from KIC position	0.141 ± 0.221	0.64	0.015 ± 0.188	0.141 ± 0.228
photometric centroid source offset	0.50 ± 0.48	1.06	-0.50 ± 0.48	-0.08 ± 0.52

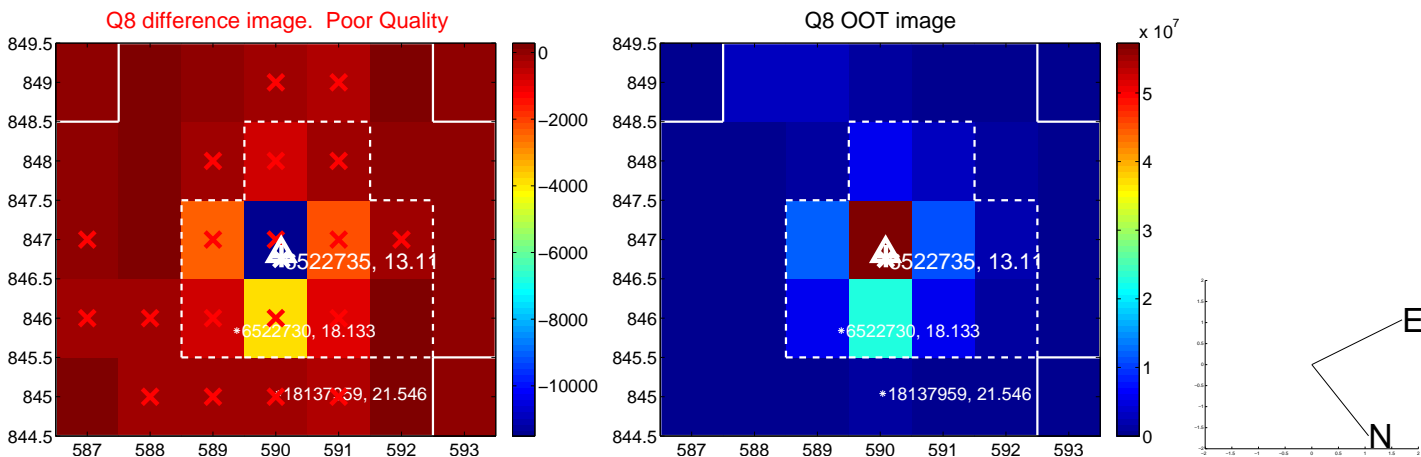
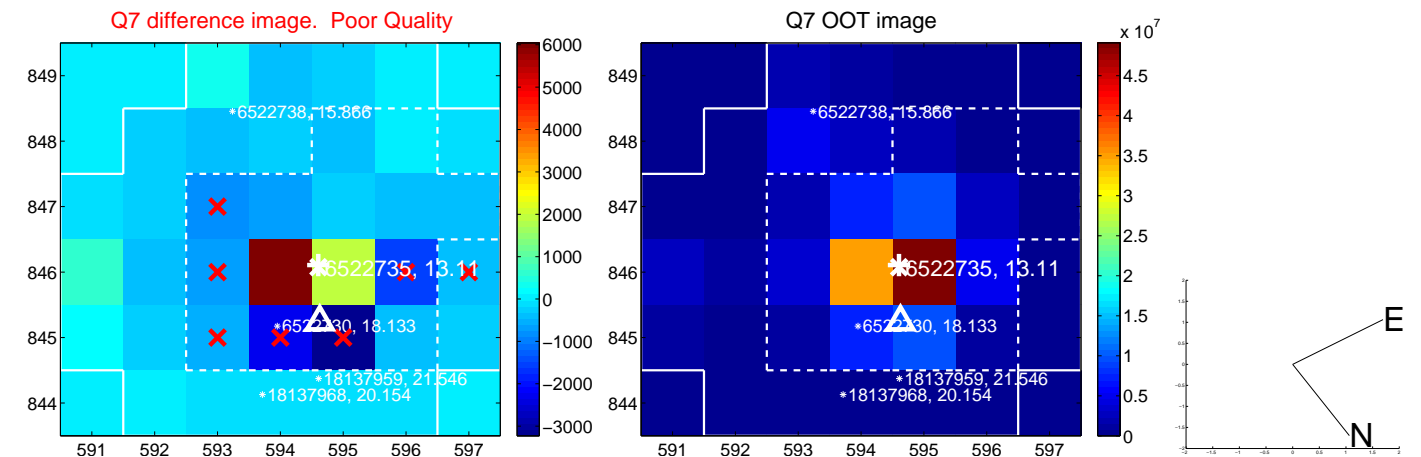
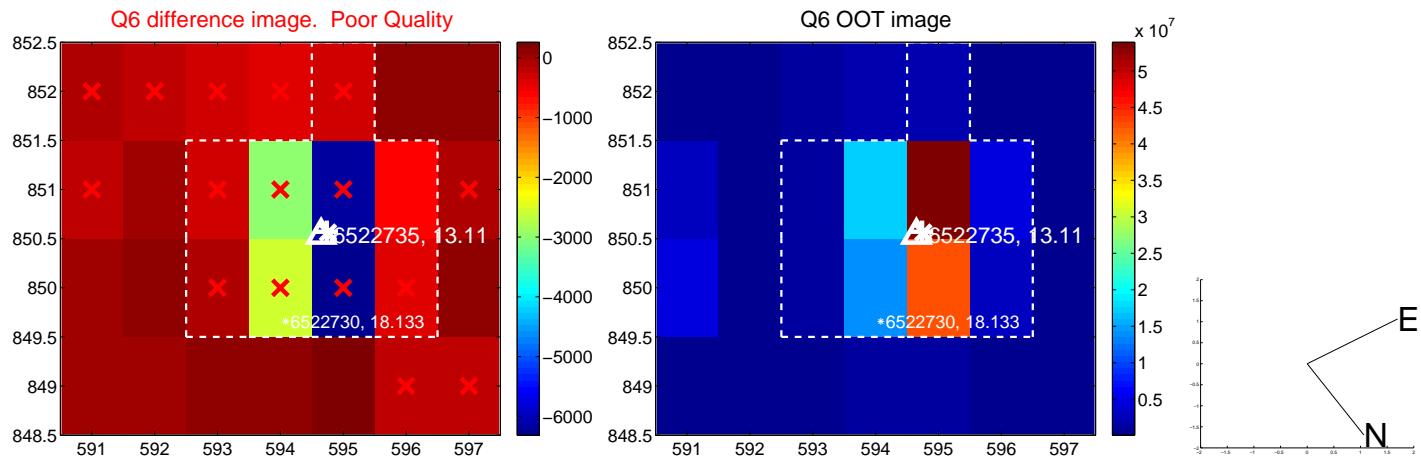
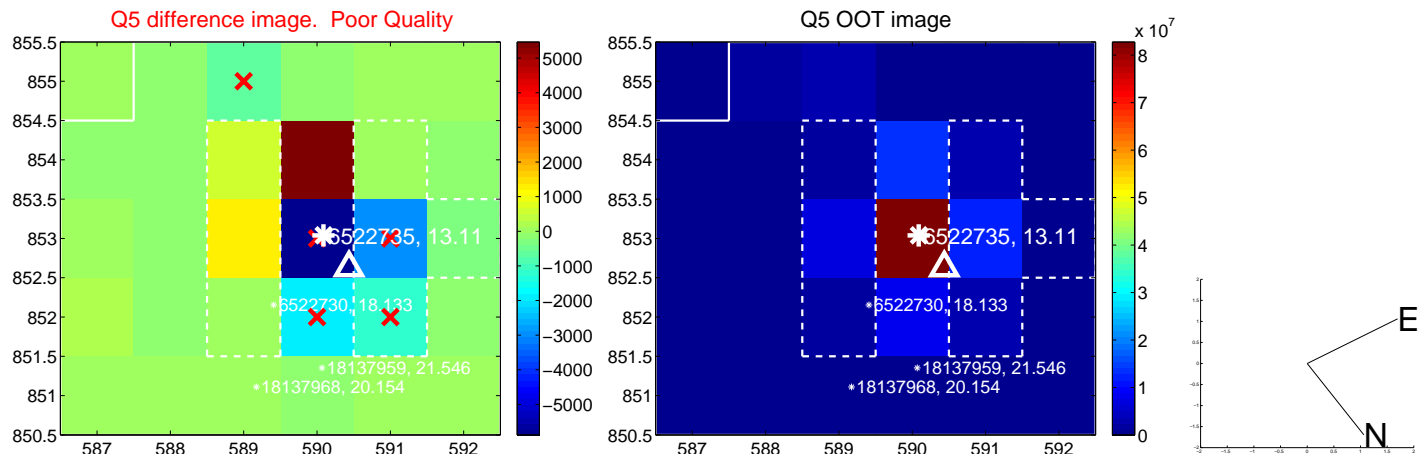


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

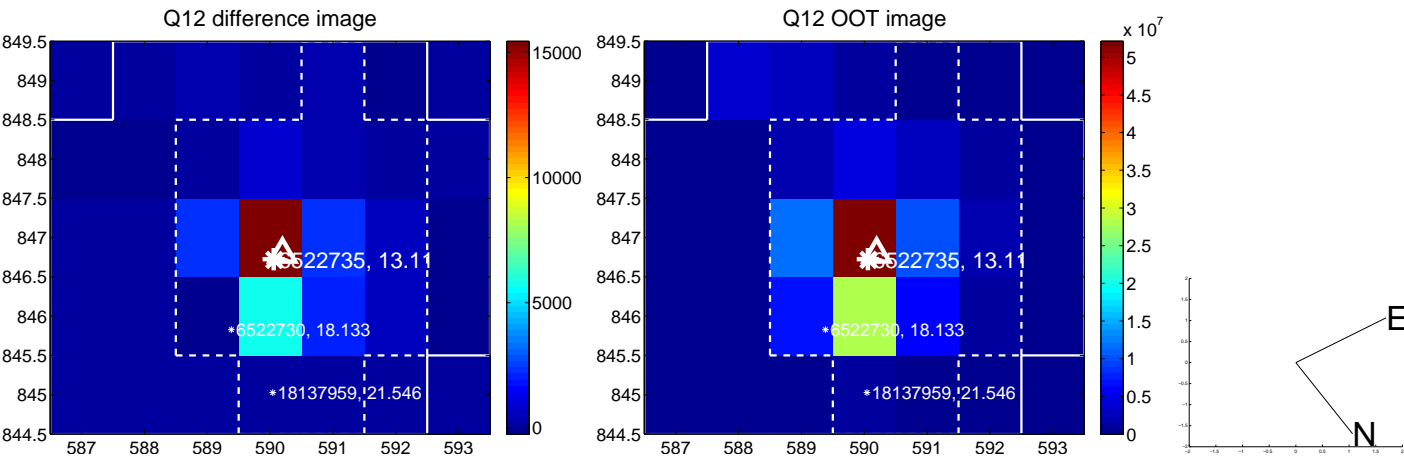
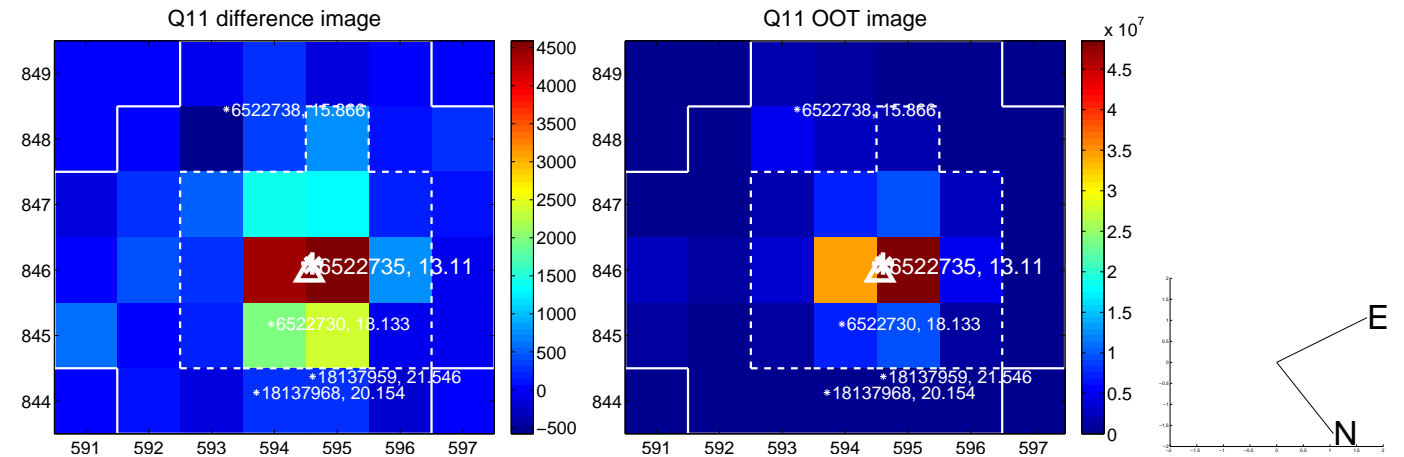
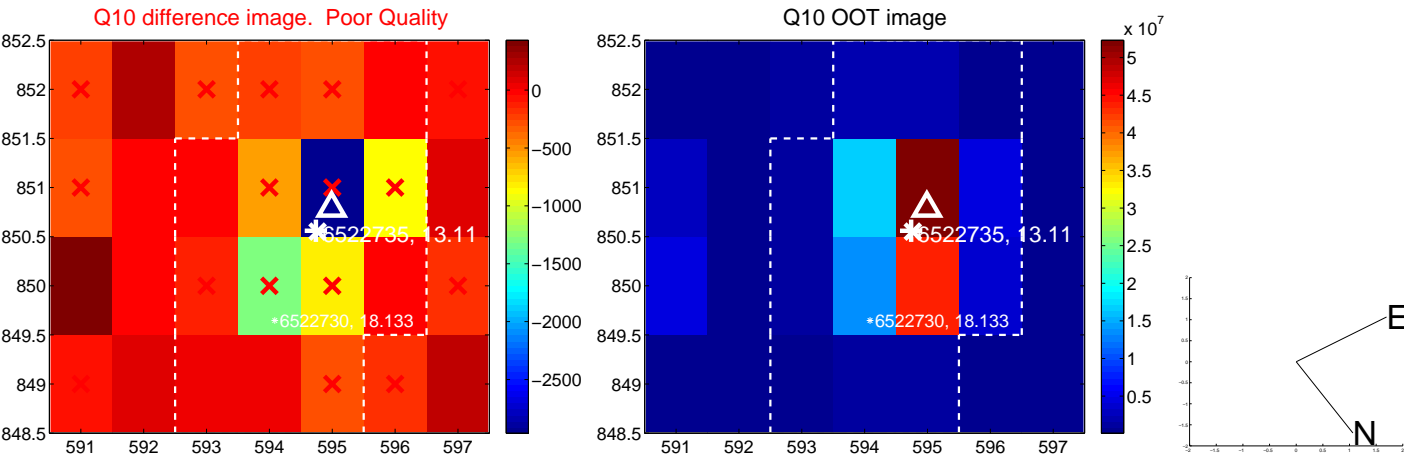
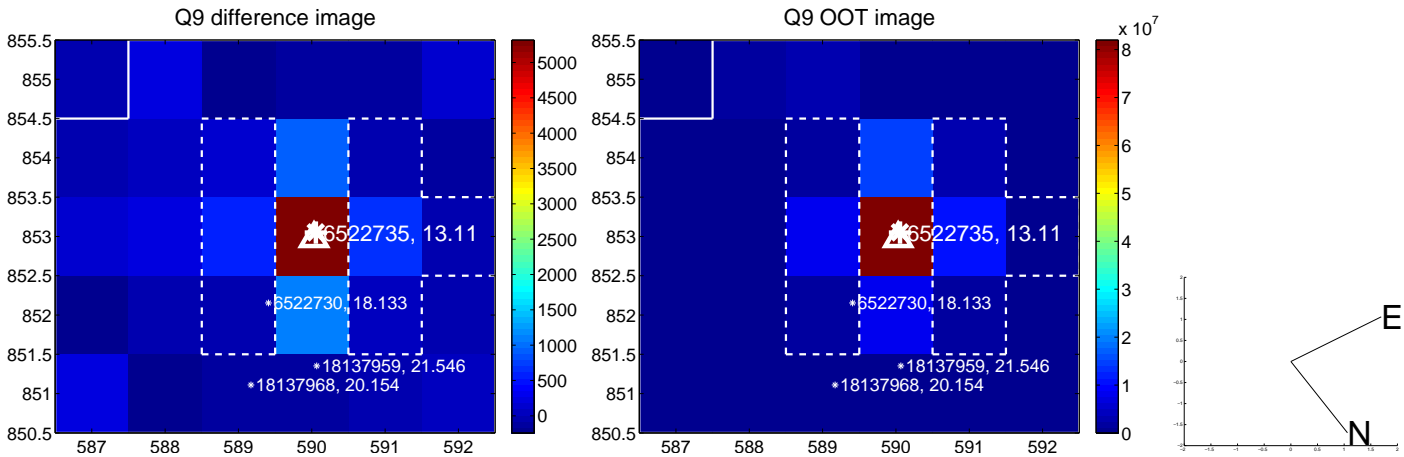
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



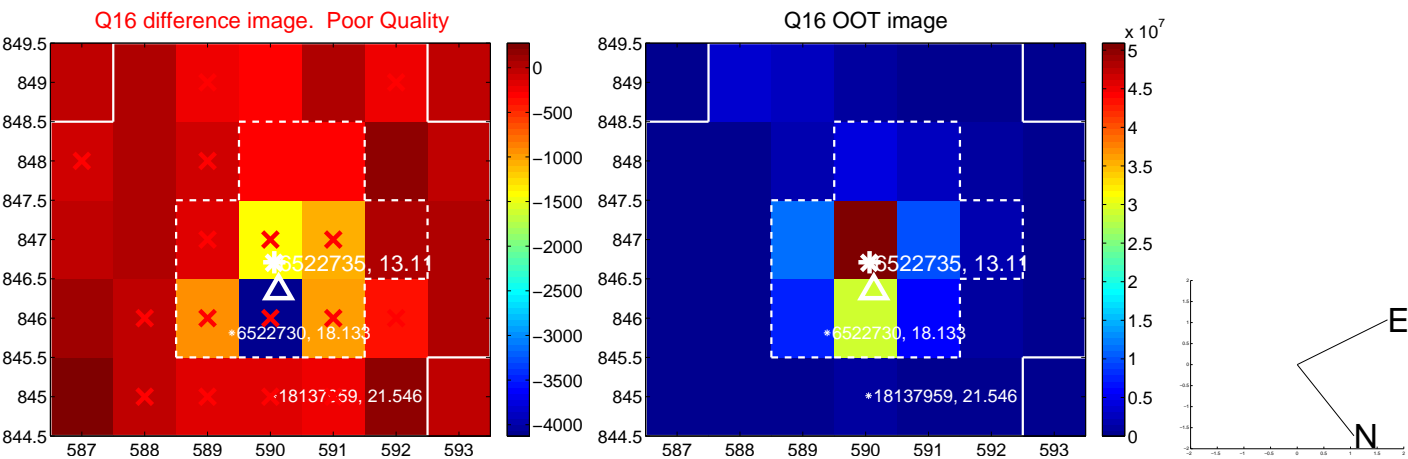
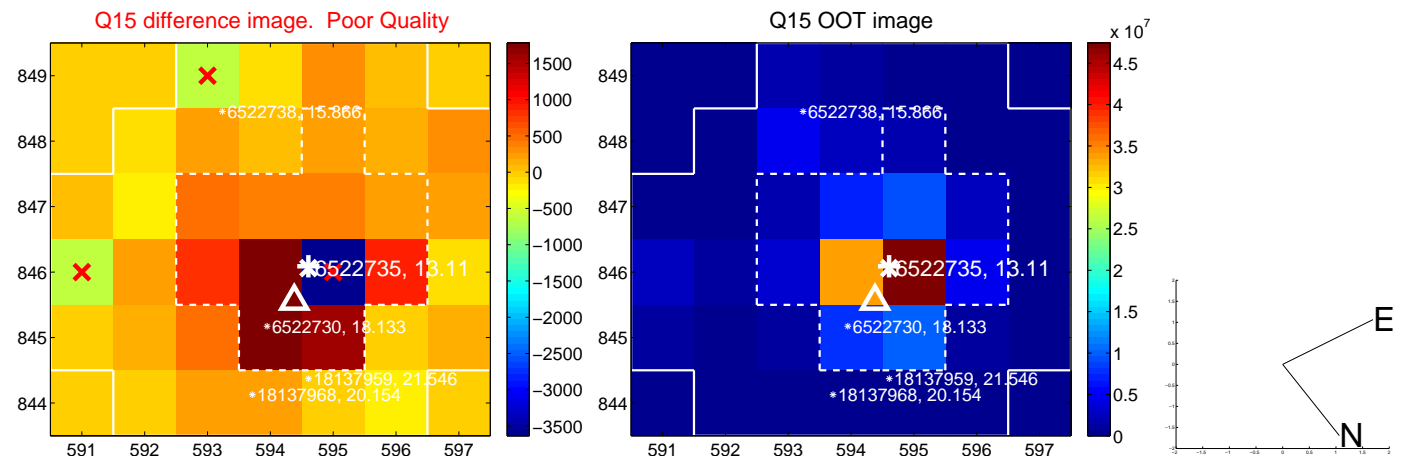
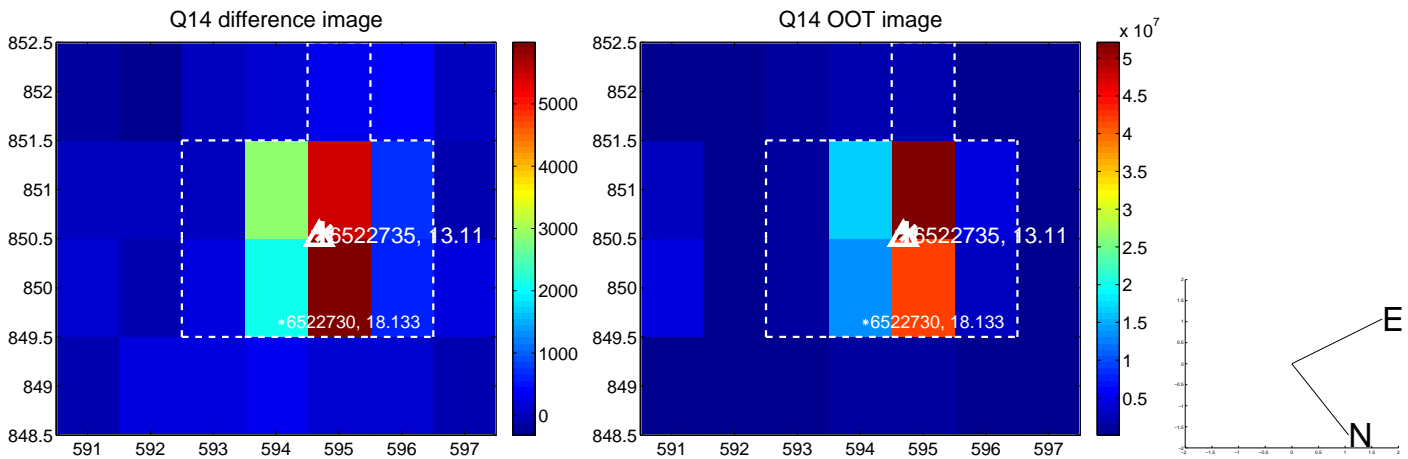
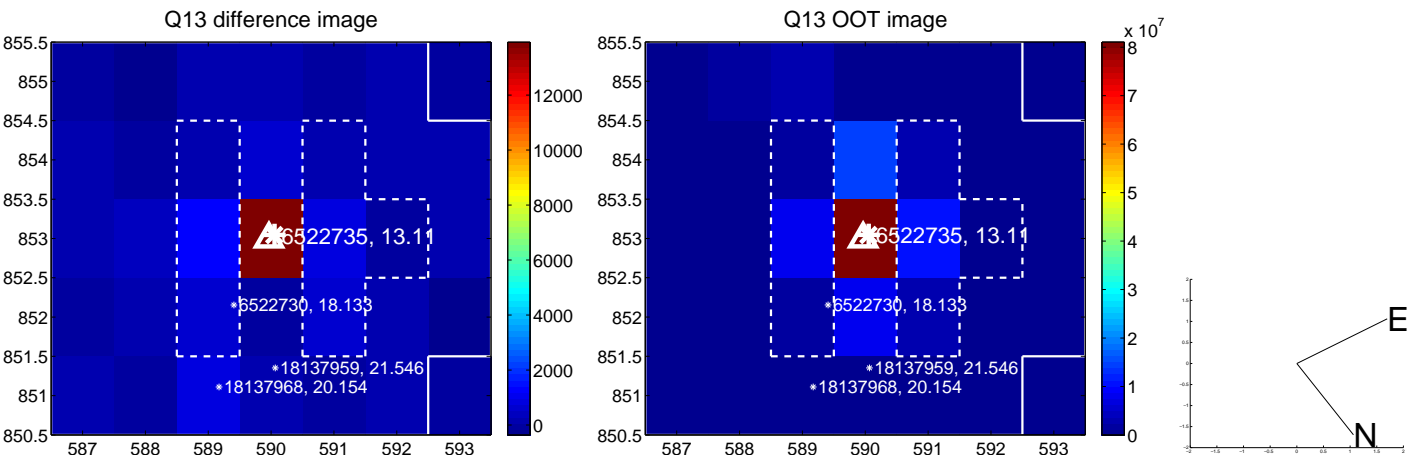
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



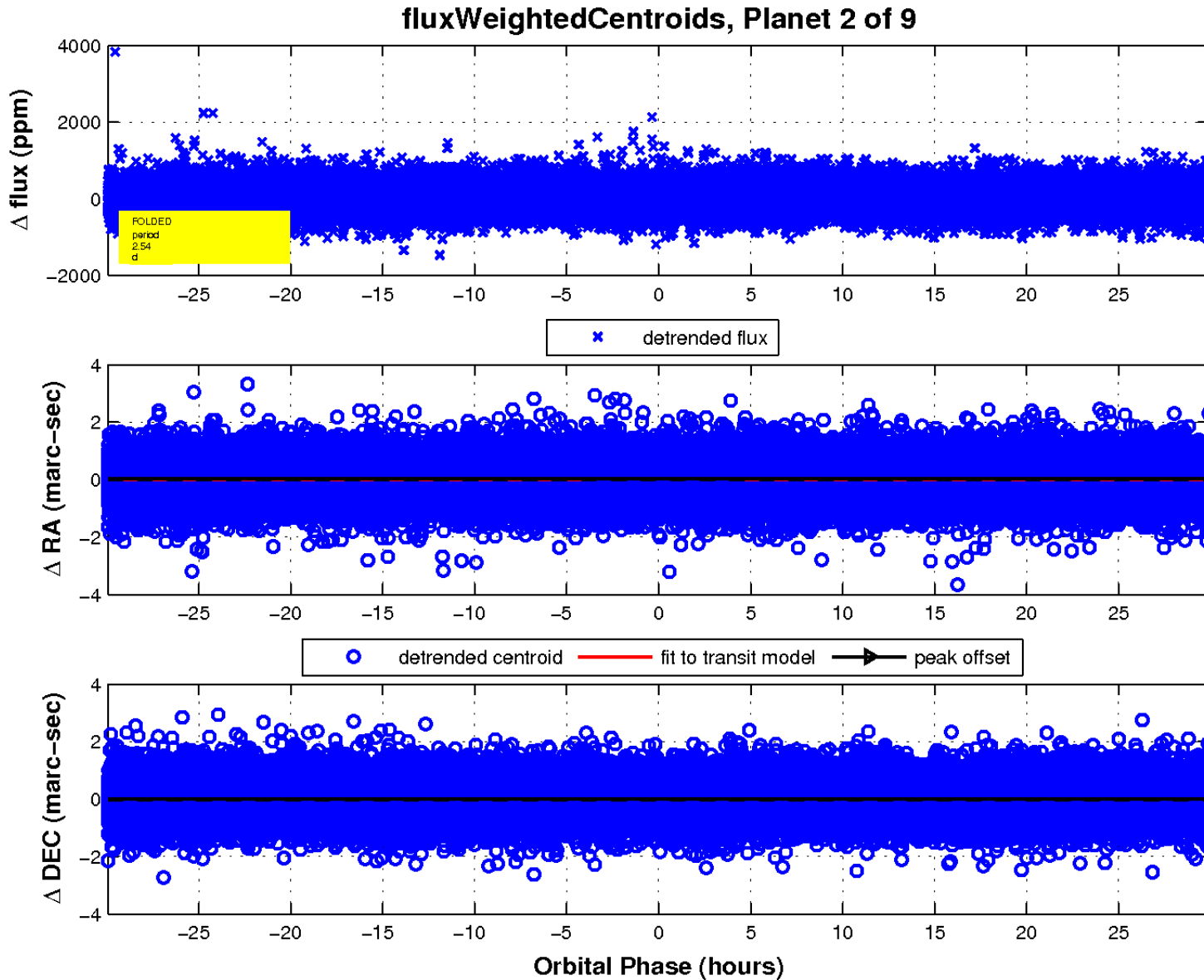
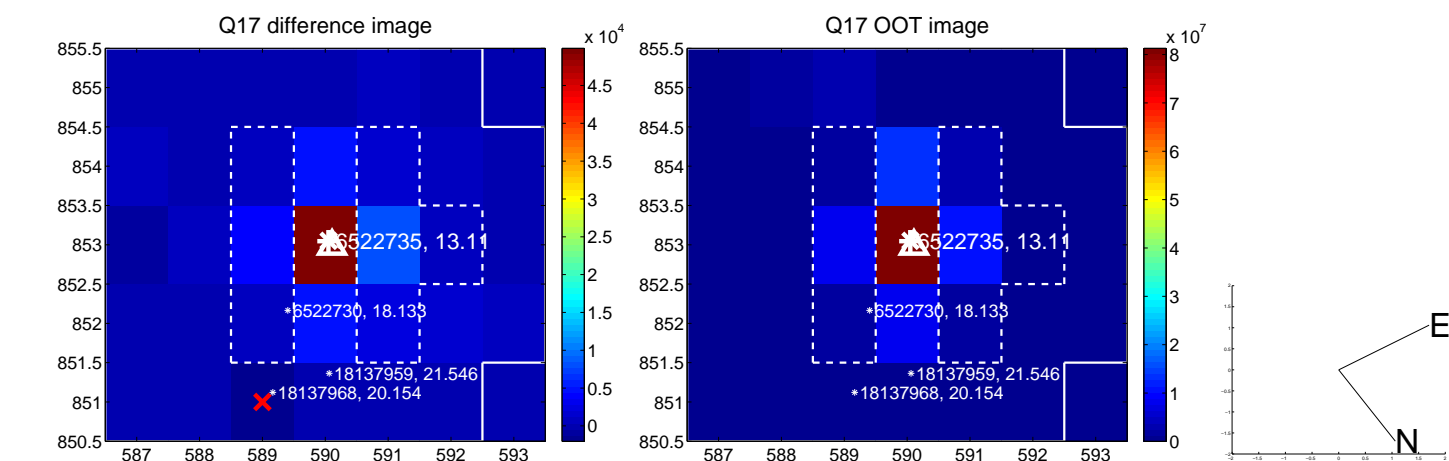
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

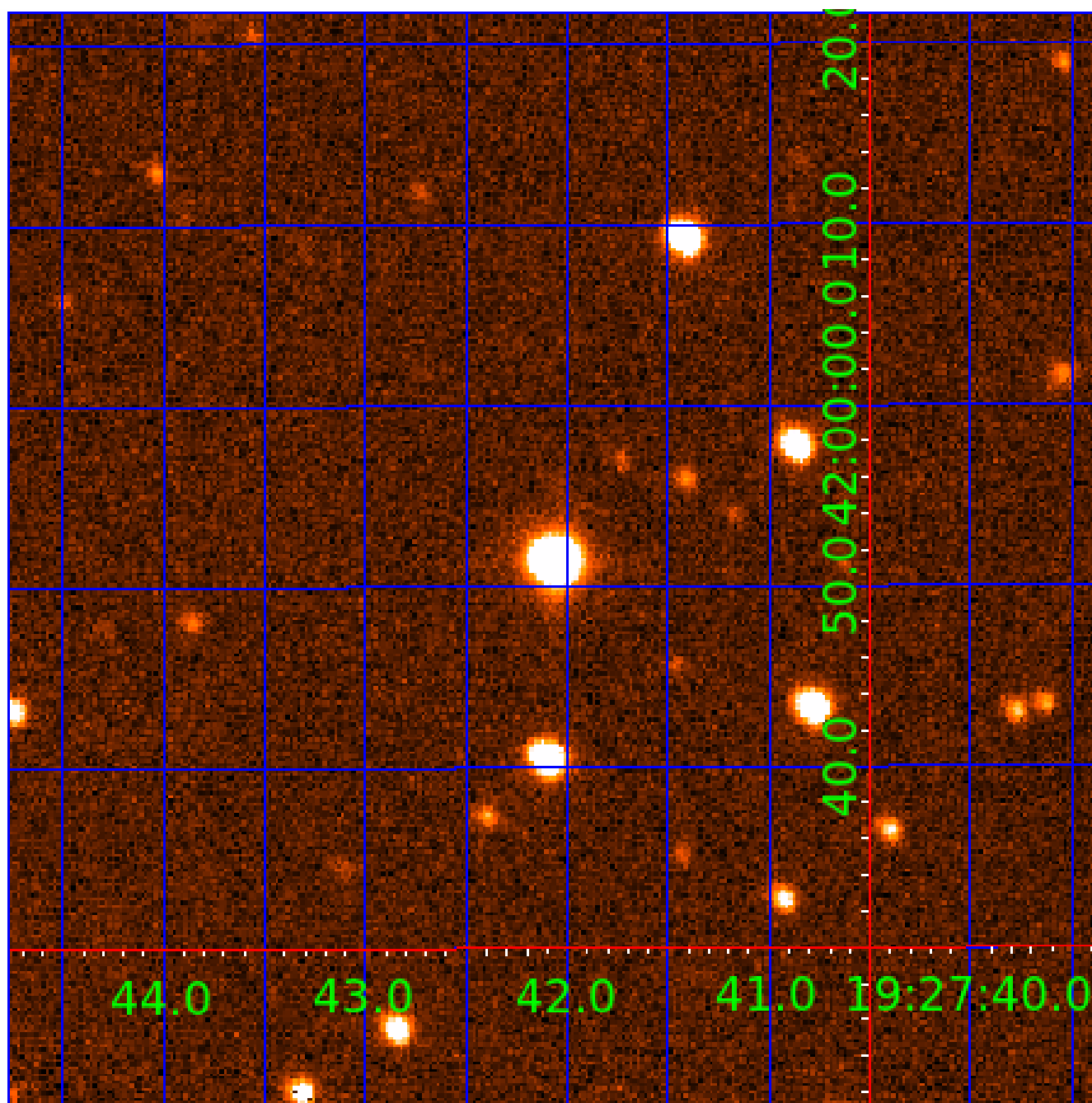


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006522735

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
006522735-01	OBS	No	2.536471	132.265097	36.7	8.777	10.1	8.9	1.74	7170	1.25	4337.07
006522735-02	OBS	No	2.536440	133.513238	38.3	9.982	11.4	10.8	1.74	7170	1.15	4337.15
006522735-03	OBS	No	16.921931	137.872806	157.2	4.259	17.9	4.9	1.74	7170	2.53	345.33
006522735-06	OBS	No	8.727425	132.272232	88.4	1.106	10.3	2.3	1.74	7170	1.70	834.94
006522735-07	OBS	No	63.979141	160.926757	418.7	5.471	13.6	9.9	1.74	7170	4.32	58.63
006522735-08	OBS	No	12.358411	141.401367	404.9	1.165	9.2	8.8	1.74	7170	3.65	525.07
006522735-09	OBS	No	10.632161	132.169697	360.5	1.109	8.6	8.1	1.74	7170	3.37	641.71

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006522735-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
006522735-02	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—SAME_NTL_PERIOD
006522735-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
006522735-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
006522735-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
006522735-08	OBS	FP	0.00	1	0	1	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—HALO_GHOST
006522735-09	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

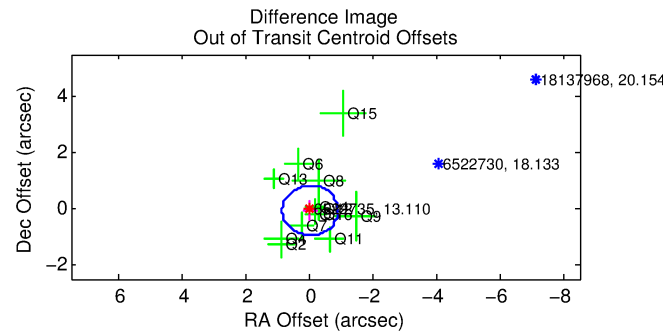
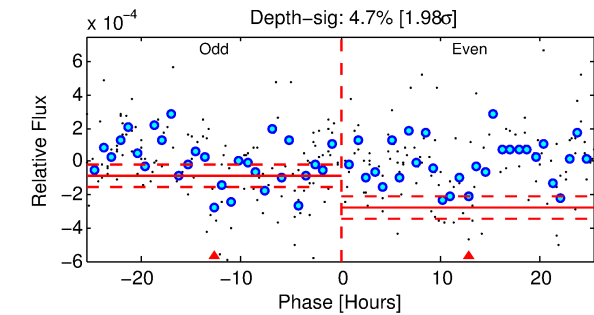
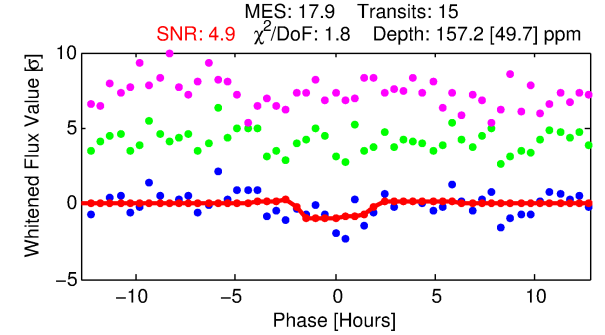
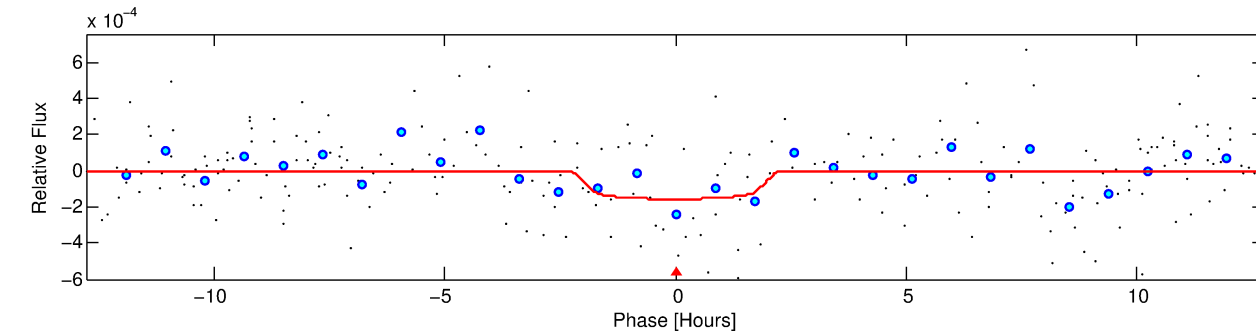
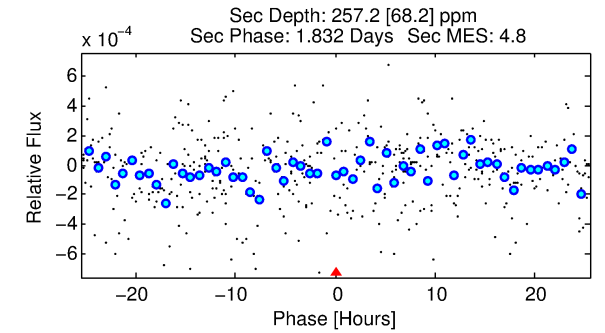
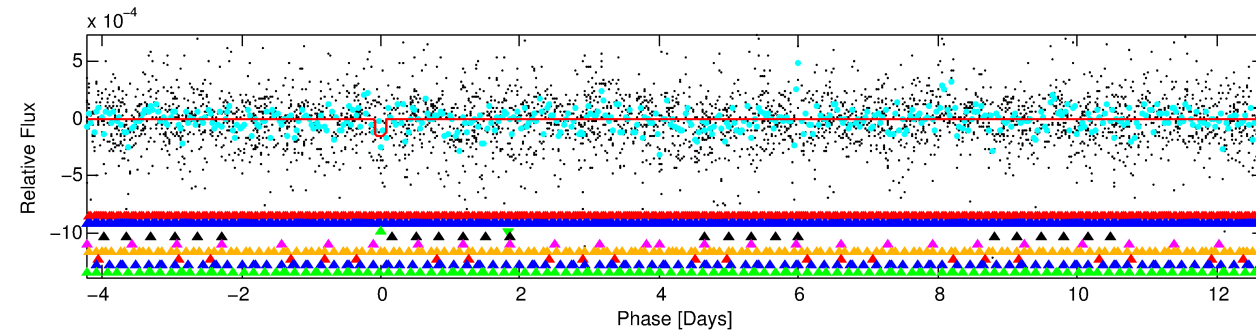
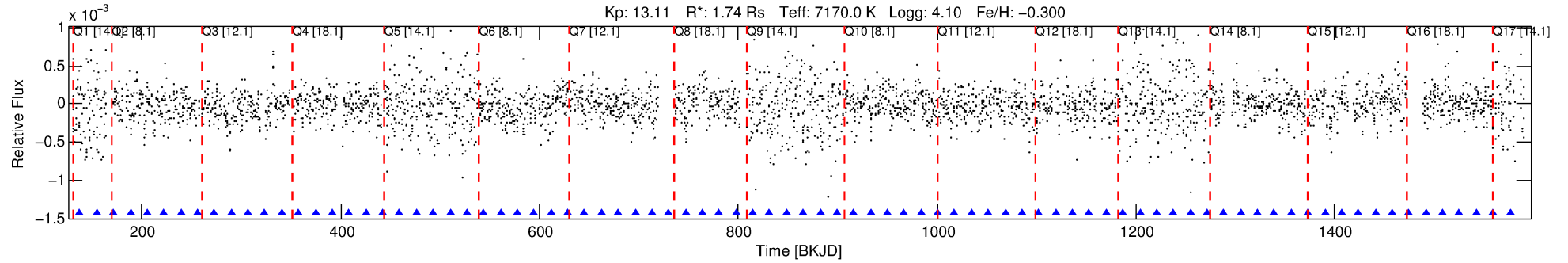
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006522735-03

No Significant Match Found

DV One-Page Summary

KIC: 6522735 Candidate: 3 of 9 Period: 16.922 d



DV Fit Results:

Period = 16.92193 [0.00064] d
Epoch = 137.8728 [0.0283] BKJD
Rp/R* = 0.0133 [0.0223]
a/R* = 14.11 [147.04]
b = 0.90 [2.22]
Seff = 345.33 [129.06]
Teq = 1099 [103] K
Rp = 2.53 [4.30] Re
a = 0.1442 [0.0350] AU
Ag = 458.45 [1544.42] [0.30 σ]
Teffp = 7864 [6596] K [1.03 σ]

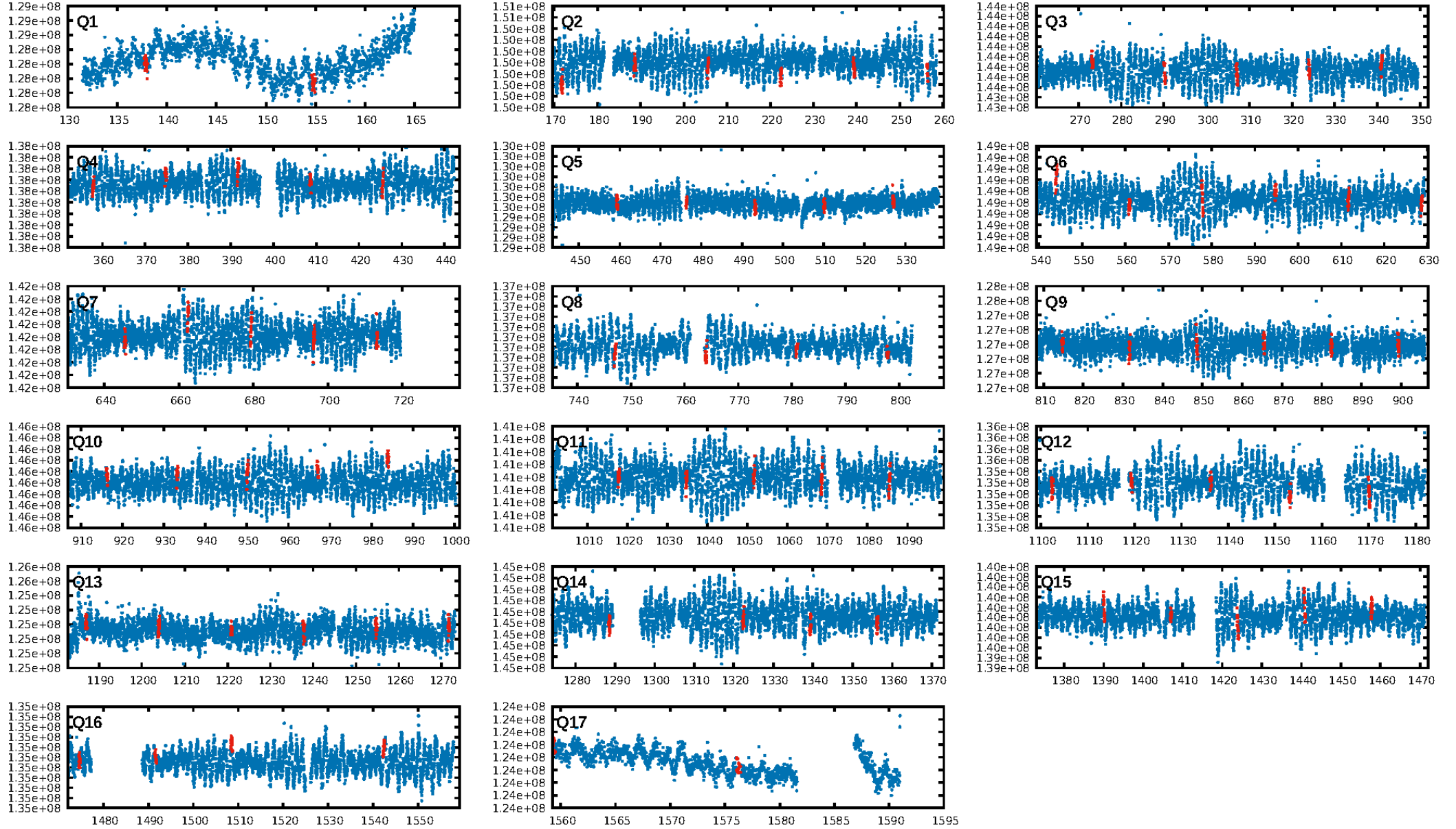
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [24.81 σ]
LongPeriod-sig: 100.0% [125.50 σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 9.01e-150
RollingBand-fgt: 1.00 [14/14]
GhostDiagnostic-chr: 0.3793
Centroid-sig: 0.3%
Centroid-so: 1.154 arcsec [2.49 σ]
OotOffset-rm: 0.062 arcsec [0.21 σ]
KicOffset-rm: 0.111 arcsec [0.32 σ]
OotOffset-st: 3/3/4/3 [13]
KicOffset-st: 3/3/4/3 [13]
DiffImageQuality-fgm: 0.54 [7/13]
DiffImageOverlap-fno: 0.18 [3/17]

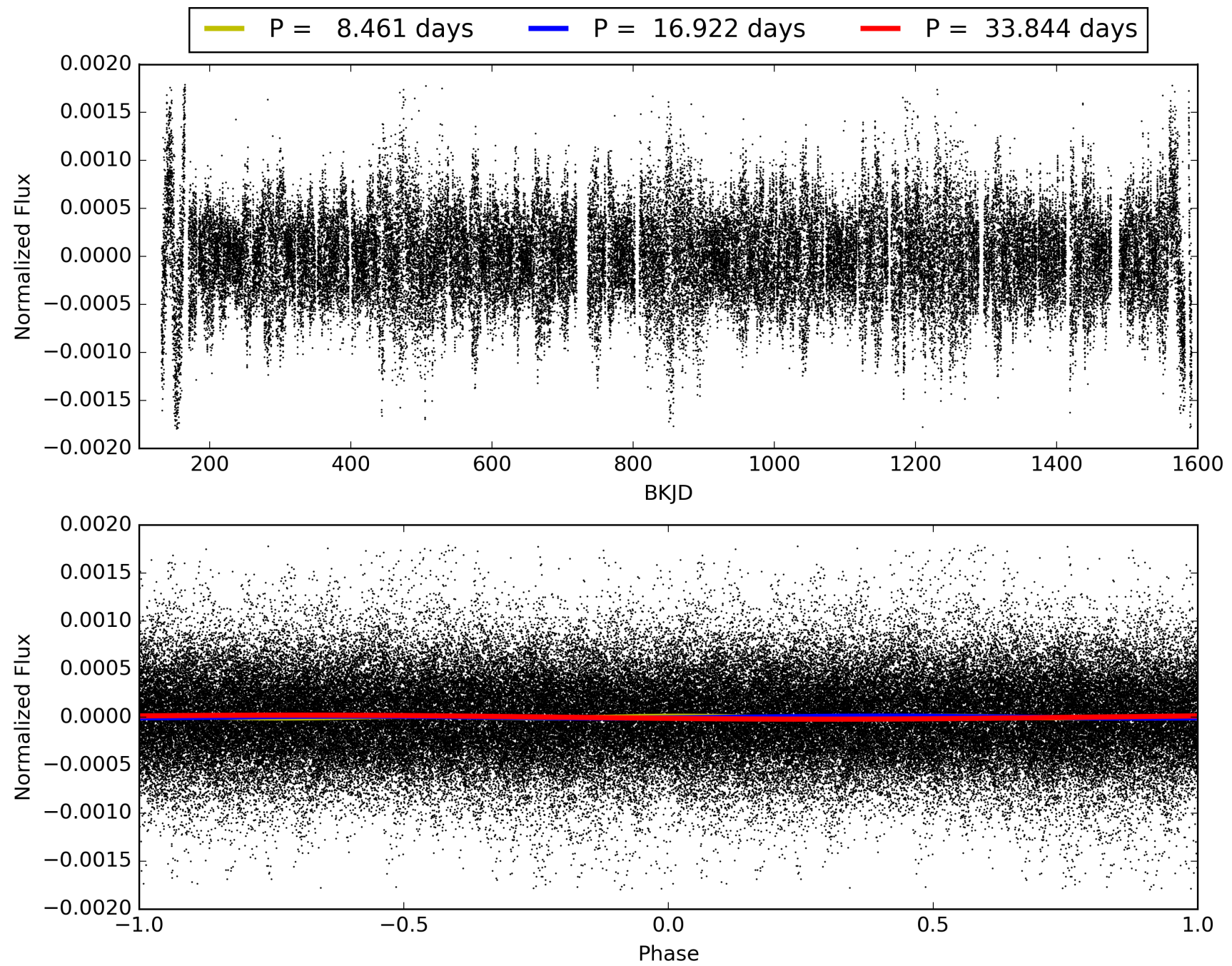
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 08:44:15 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006522735-03, PDC Light Curves

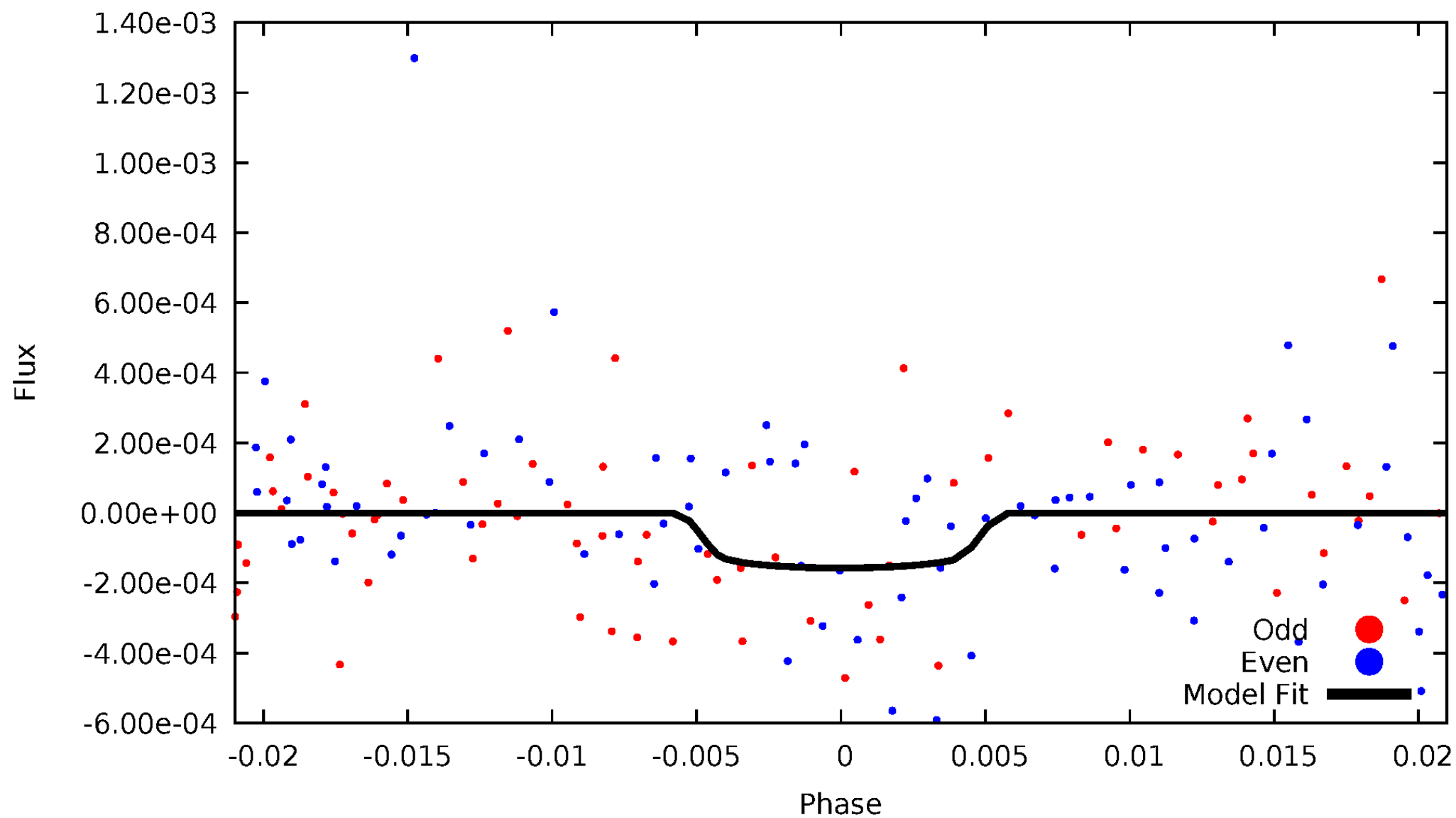


TCE 006522735-03



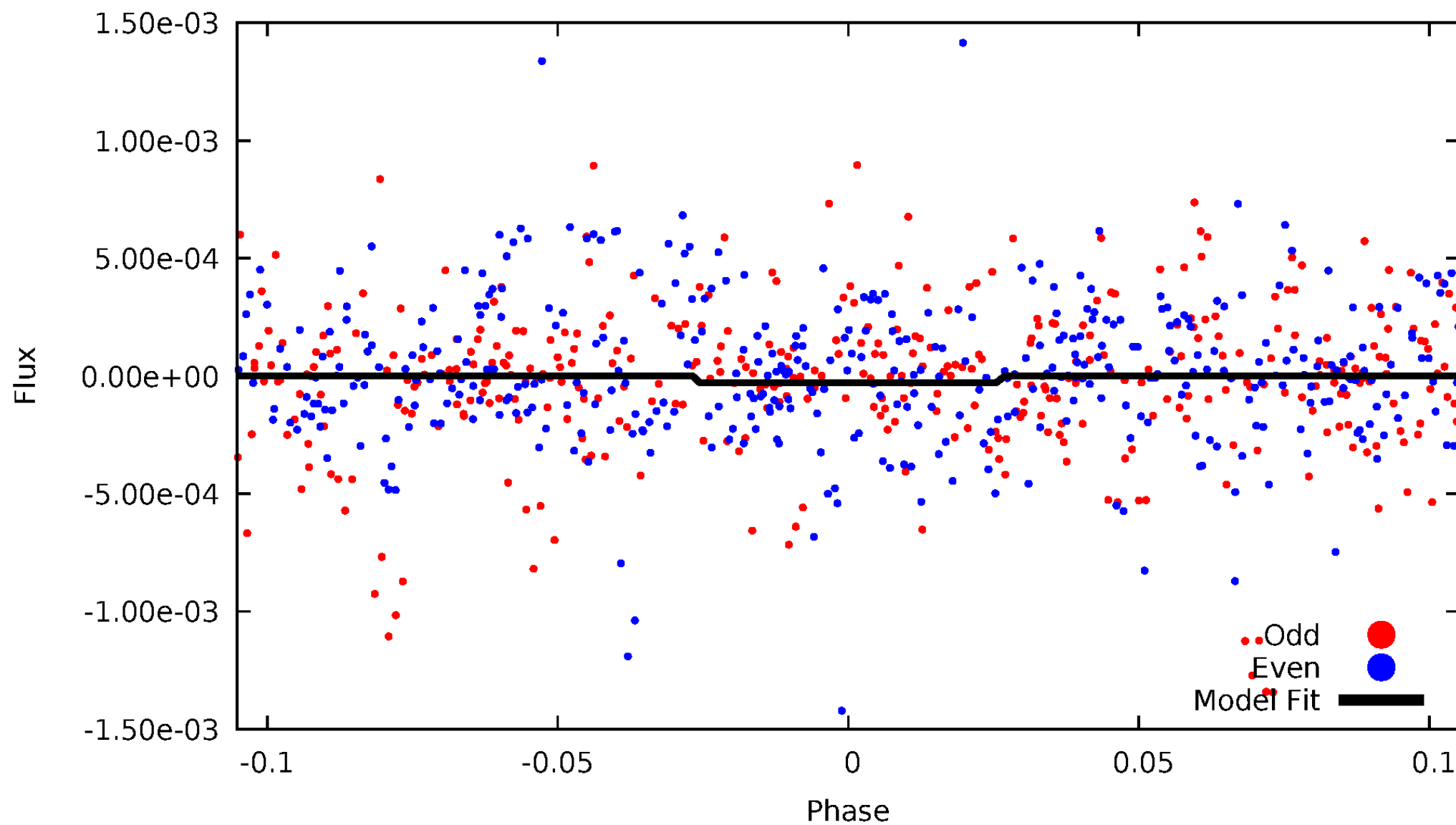
DV Odd/Even

TCE 006522735-03



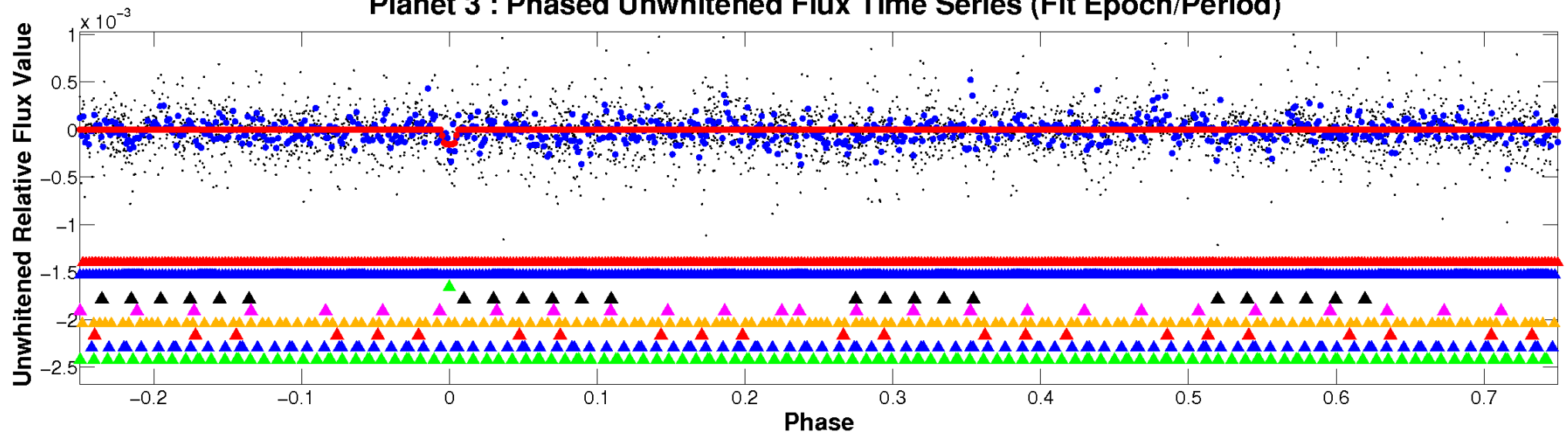
ALT Odd/Even

TCE 006522735-03

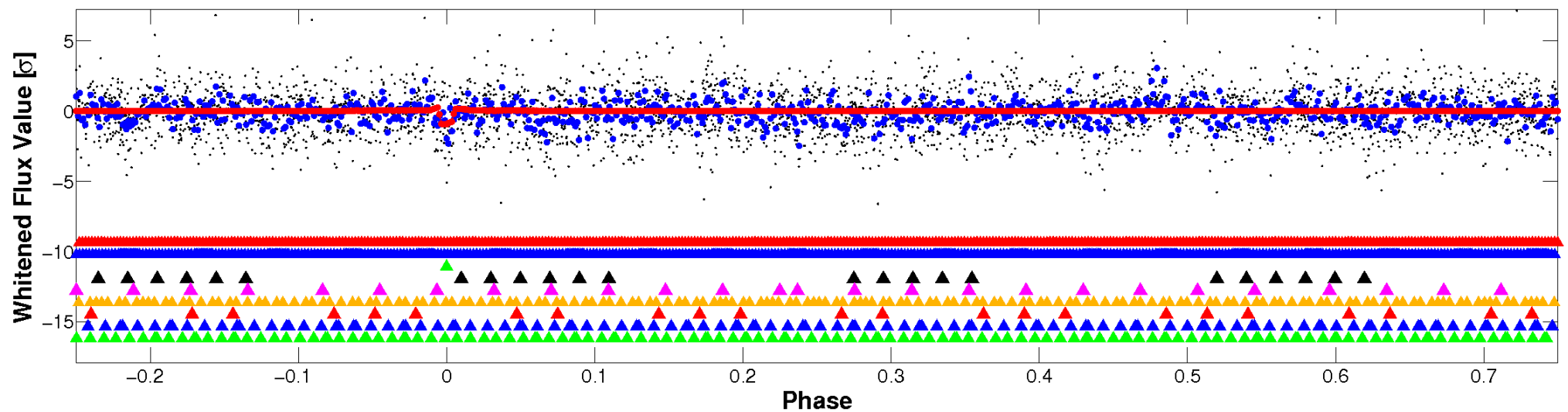


Non-Whitened Vs. Whitened Light Curve

Planet 3 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

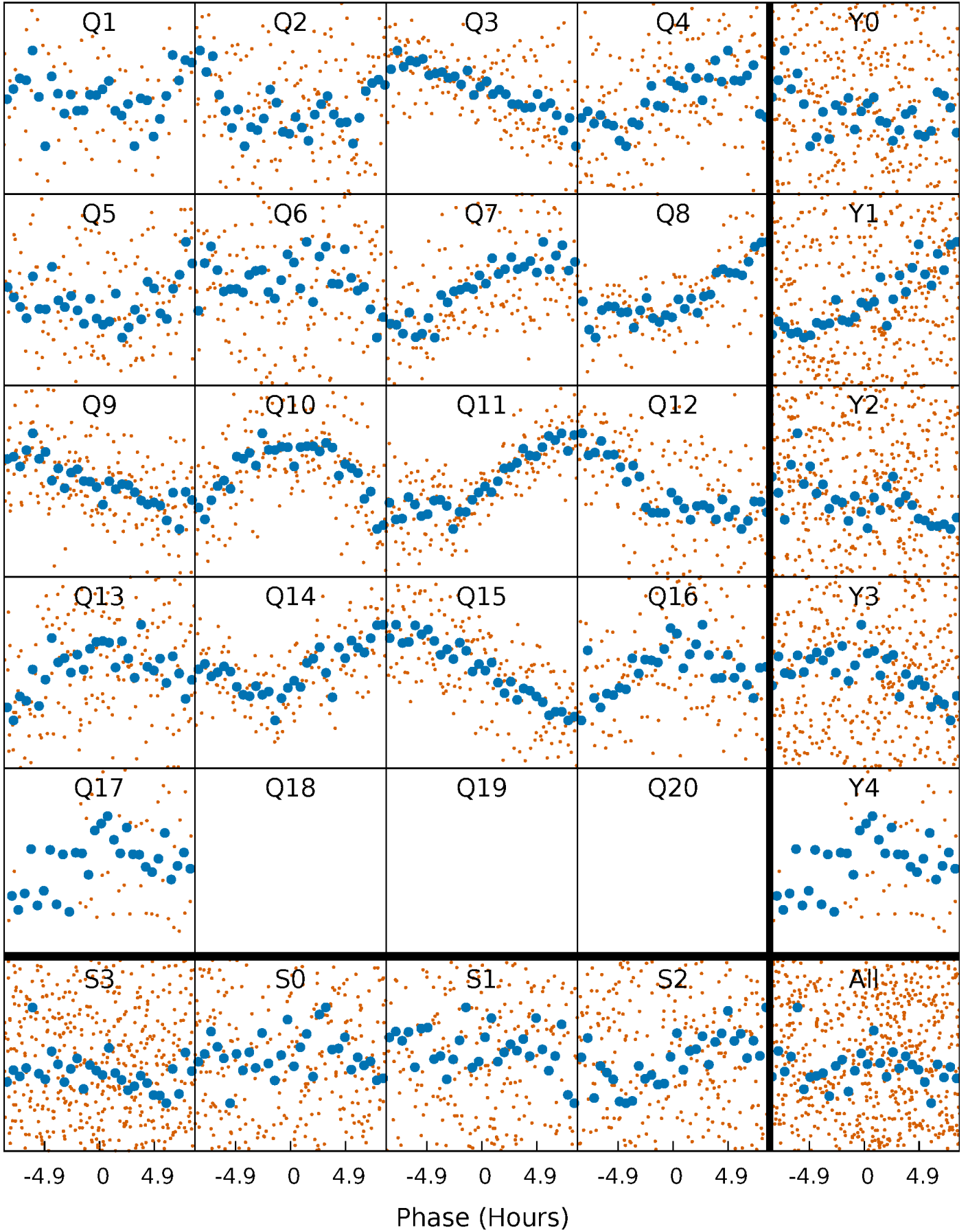


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



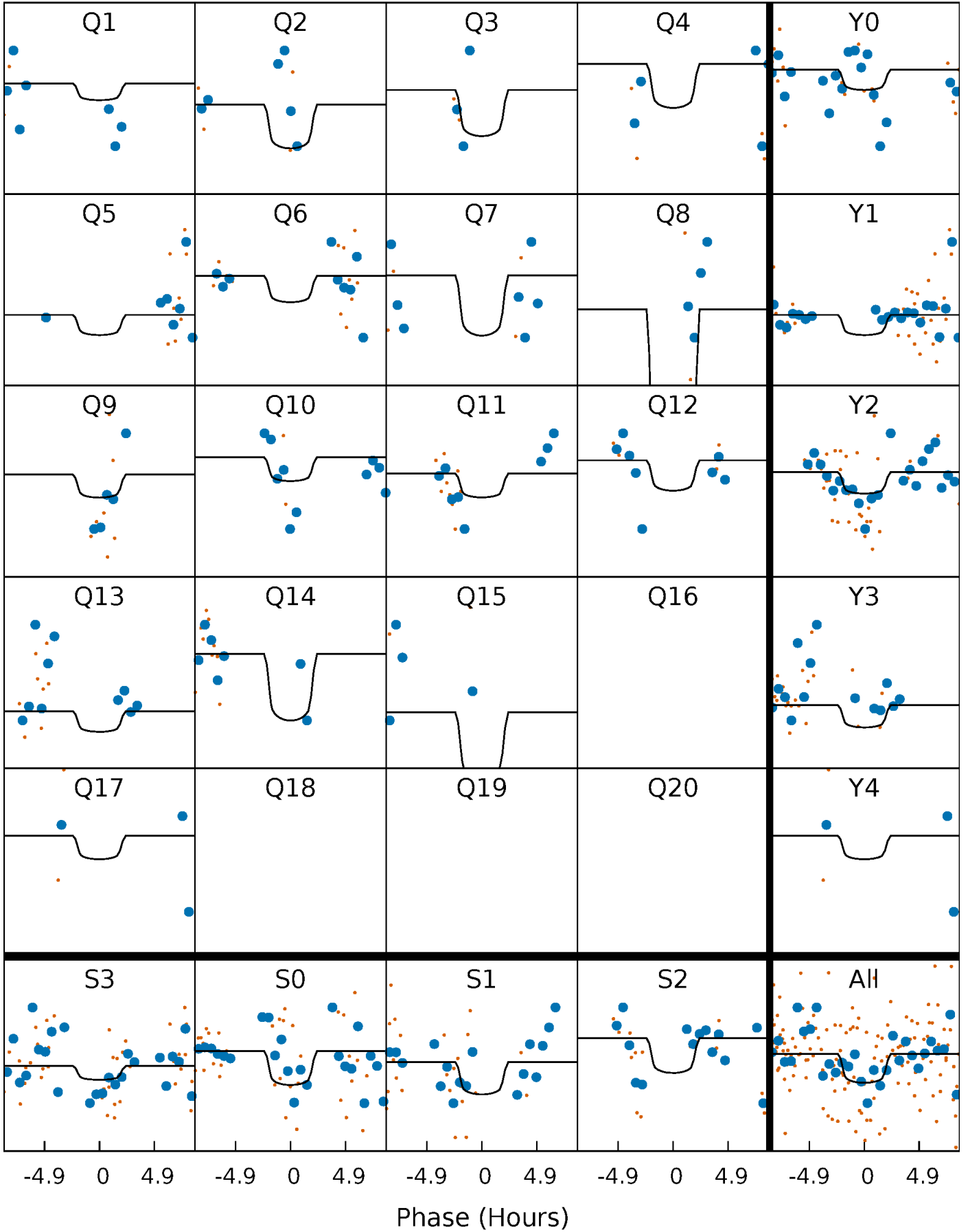
PDC Quarter-Phased Transit Curves

TCE 006522735-03 P= 16.921931 Days $T_0=137.872806$ (BKJD)



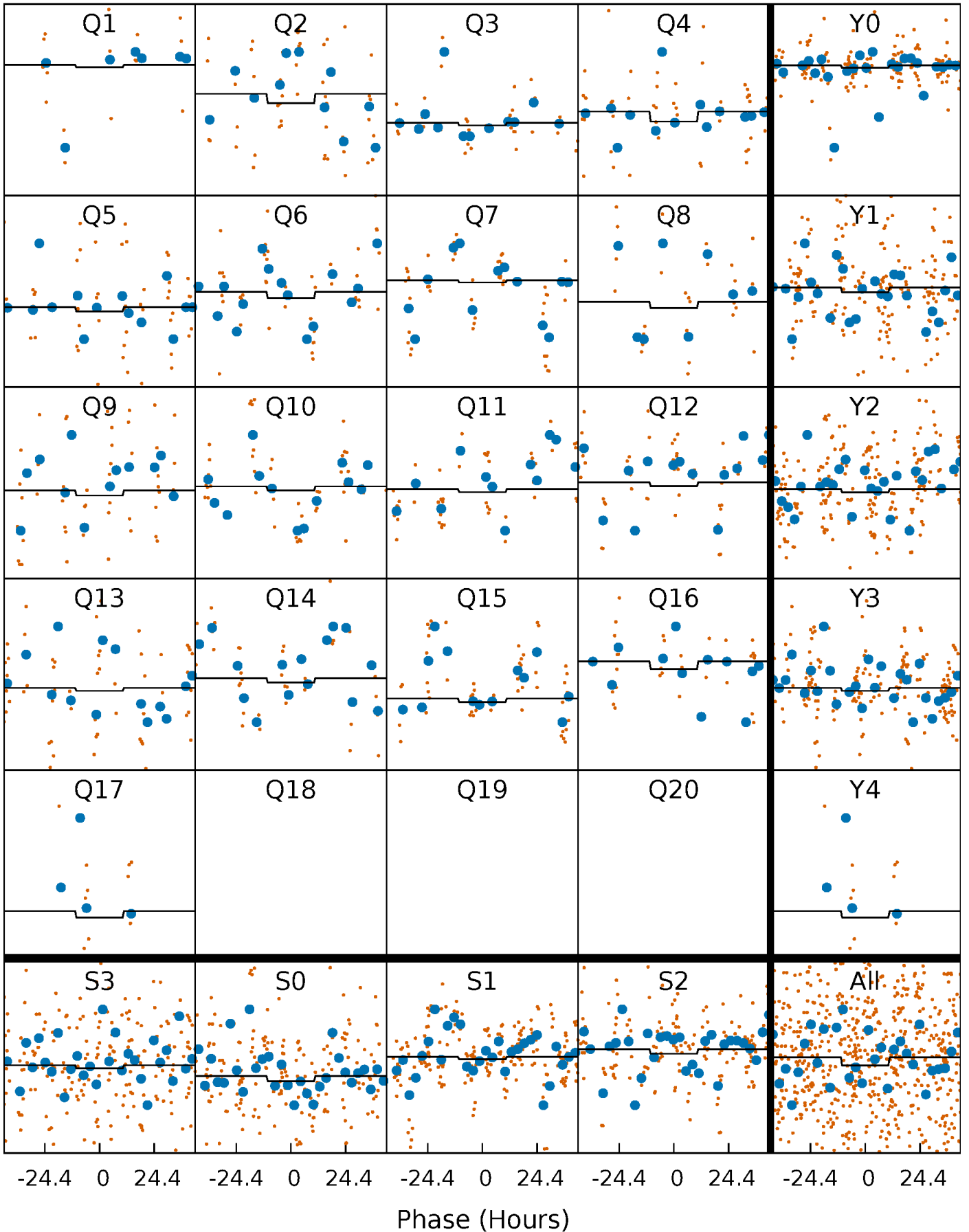
DV Quarter-Phased Transit Curves

TCE 006522735-03 P= 16.921931 Days $T_0=137.872806$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

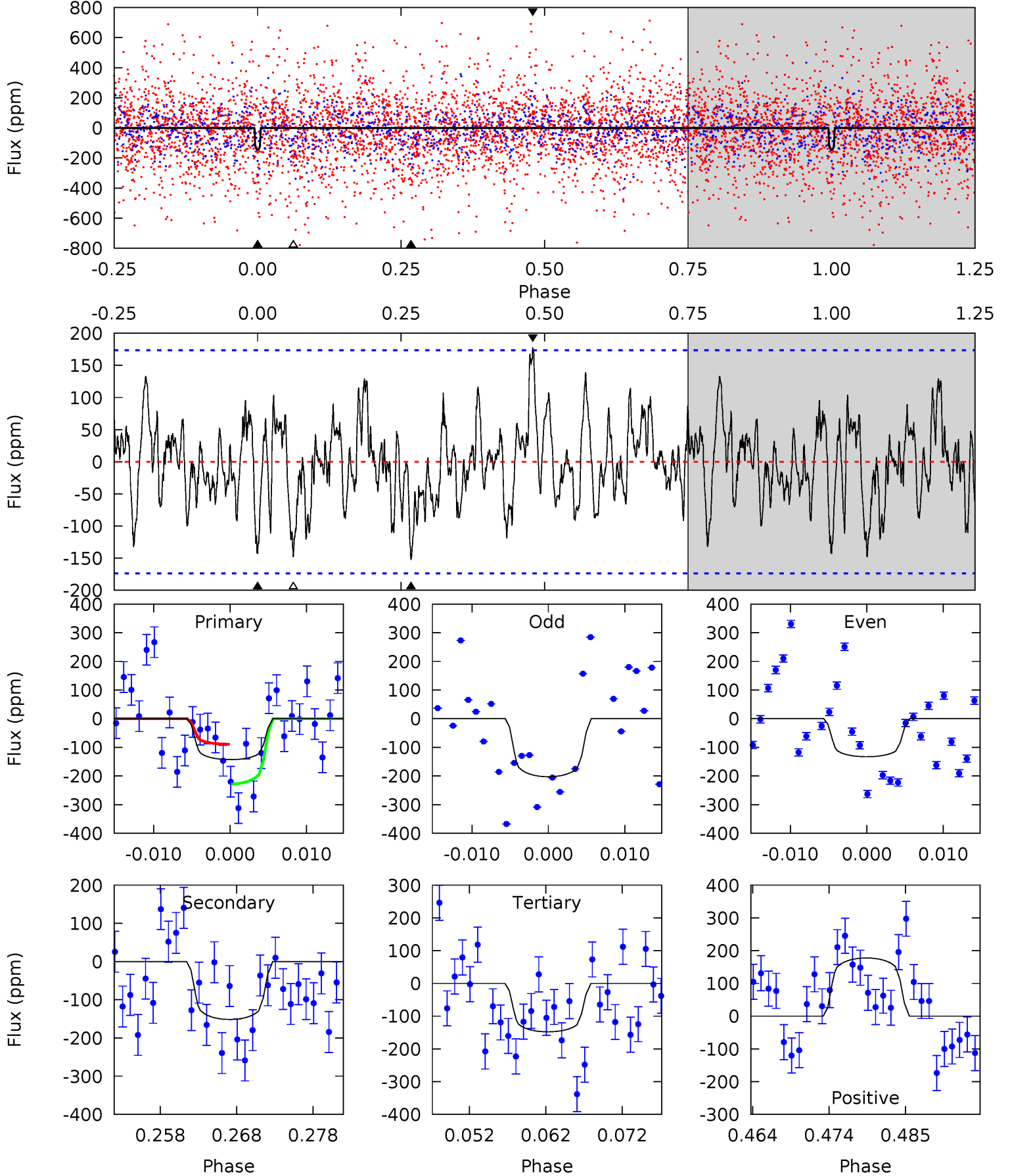
TCE 006522735-03 P= 16.921038 Days $T_0=138.570512$ (BKJD)



DV Model-Shift Uniqueness Test

006522735-03, P = 16.921931 Days, E = 120.950875 Days

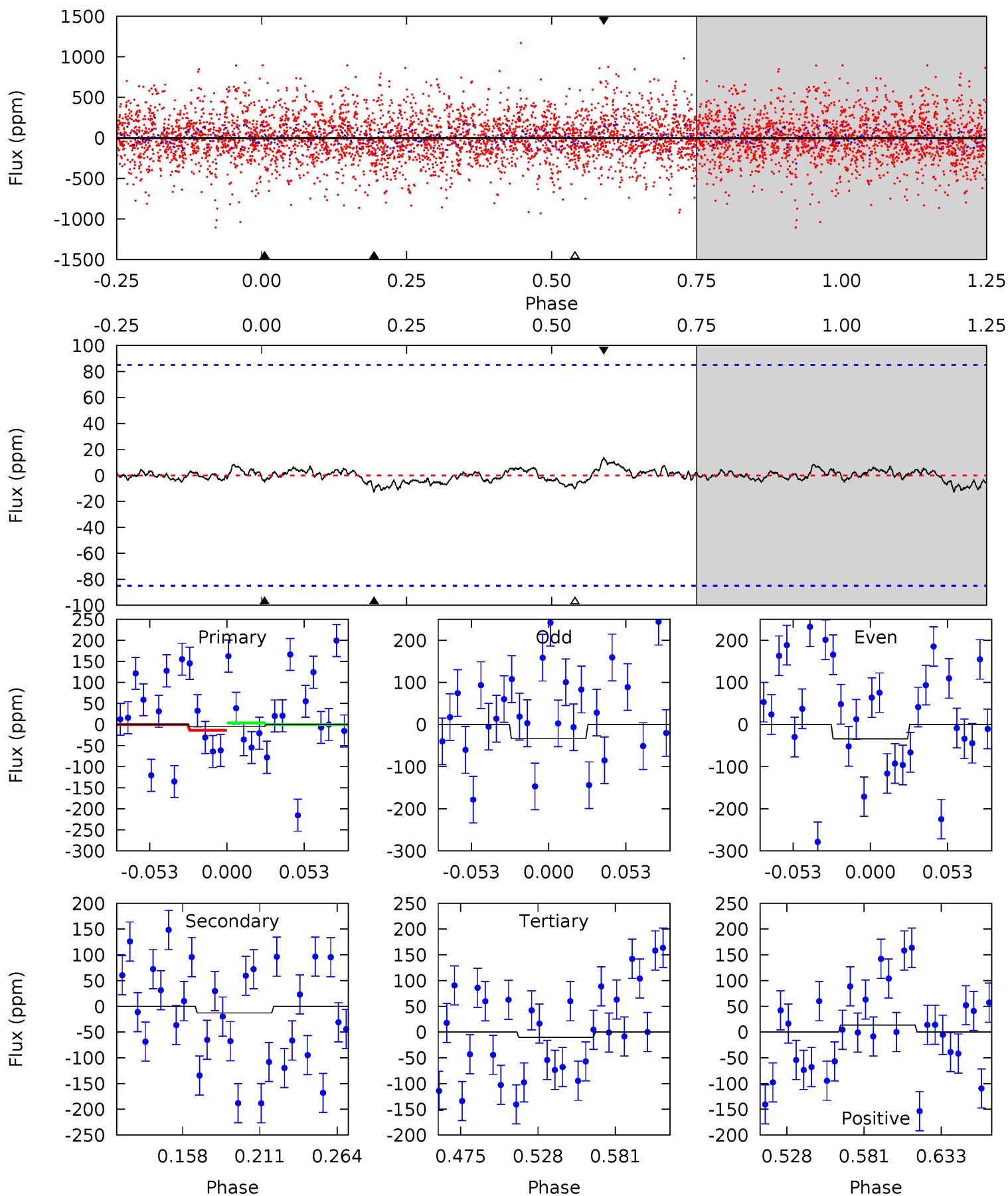
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.13	4.38	4.28	5.13	5.02	2.57	1.58	-0.14	-1.00	0.11	-0.75	0.98	6.54	0.54	2.02



Alt Model-Shift Uniqueness Test

006522735-03, P = 16.921038 Days, E = 121.649474 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.28	0.71	0.56	0.75	4.70	1.94	0.23	-0.28	-0.46	0.15	-0.03	0.01	-3.8E7	0.51	0.26



Stellar Parameters For KIC 006522735

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7170^{+199}_{-274}	$4.101^{+0.180}_{-0.180}$	$-0.300^{+0.250}_{-0.350}$	$1.741^{+0.522}_{-0.475}$	$1.397^{+0.205}_{-0.228}$	$0.373^{+0.384}_{-0.177}$
	$+3\%/-4\%$	$+4\%/-4\%$	$+83\%/-117\%$	$+30\%/-27\%$	$+15\%/-16\%$	$+103\%/-47\%$
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 006522735-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-152 ± 35	$4.24^{+3.98}_{-2.97}$	1539^{+110}_{-116}	5305^{+4958}_{-1242}	96^{+946}_{-71}
Alt.	-13 ± 18	$3.09^{+3.66}_{-2.03}$	1537^{+112}_{-121}	3422^{+2105}_{-6468}	$9.496^{+103.547}_{-12.957}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

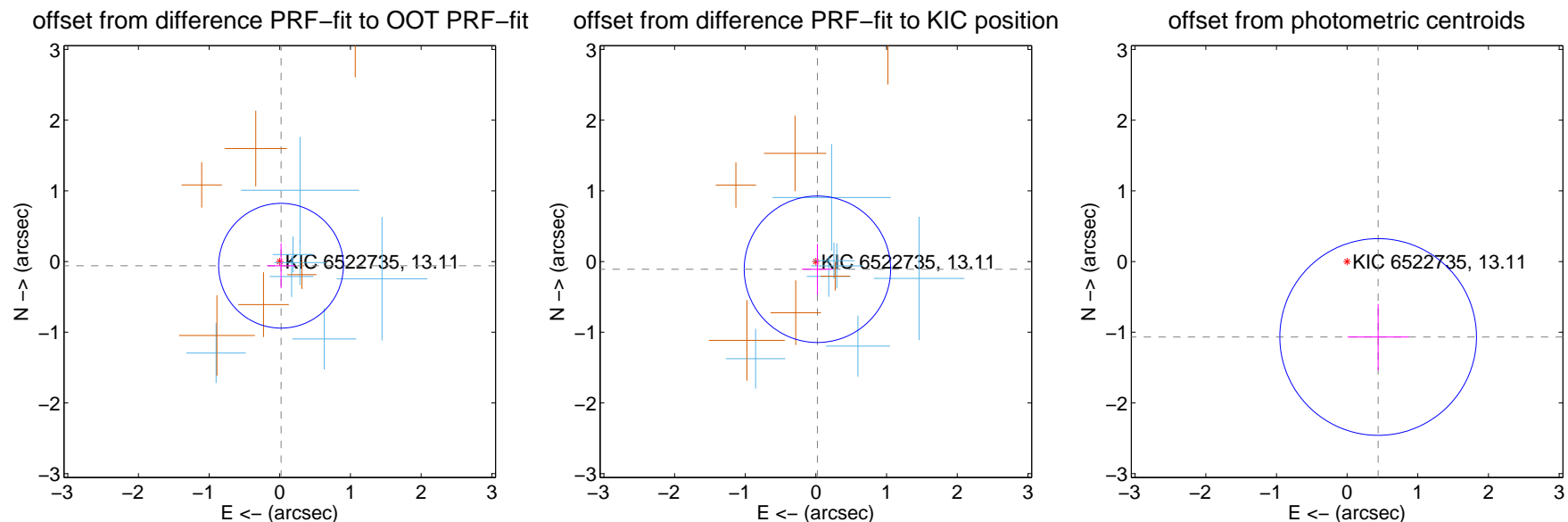
DV Centroid Data

Supplemental centroid analysis for 006522735-03. Kepler magnitude: 13.11. Transit SNR 4.86

There are 7 quarters with good PRF difference image offsets

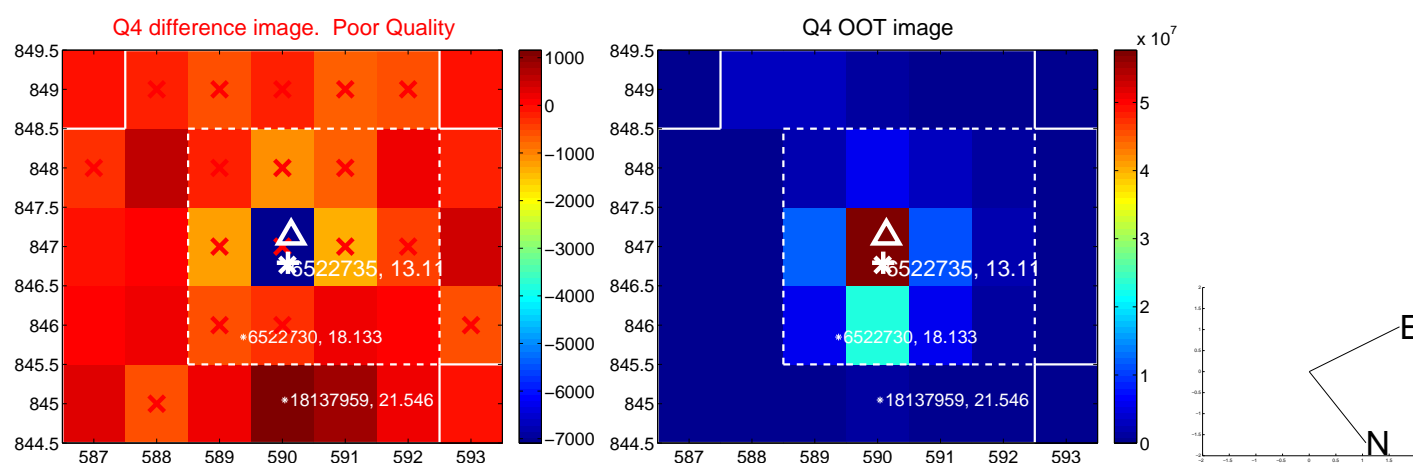
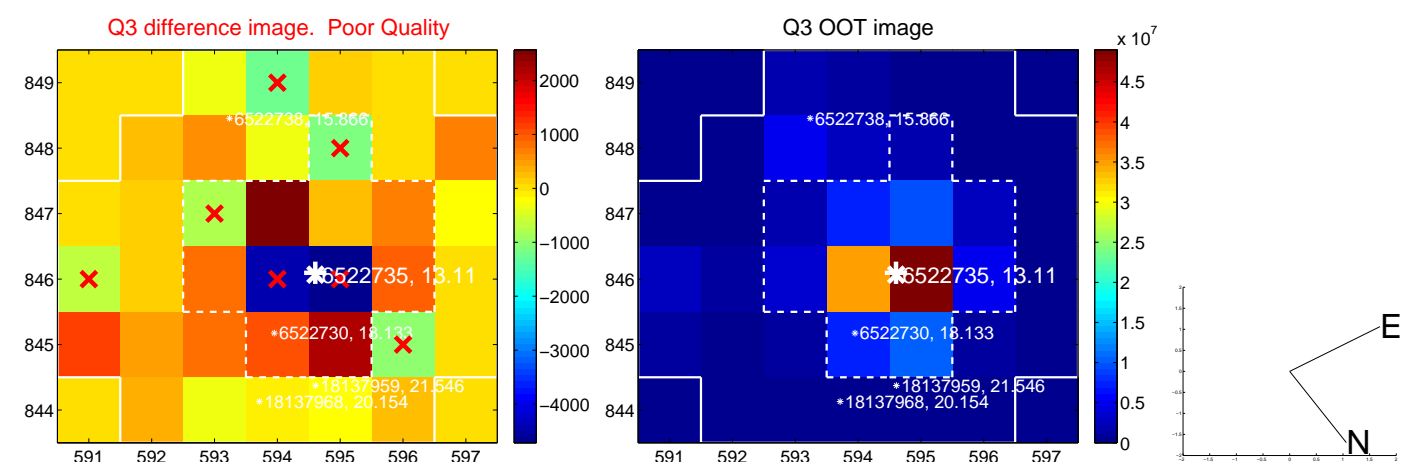
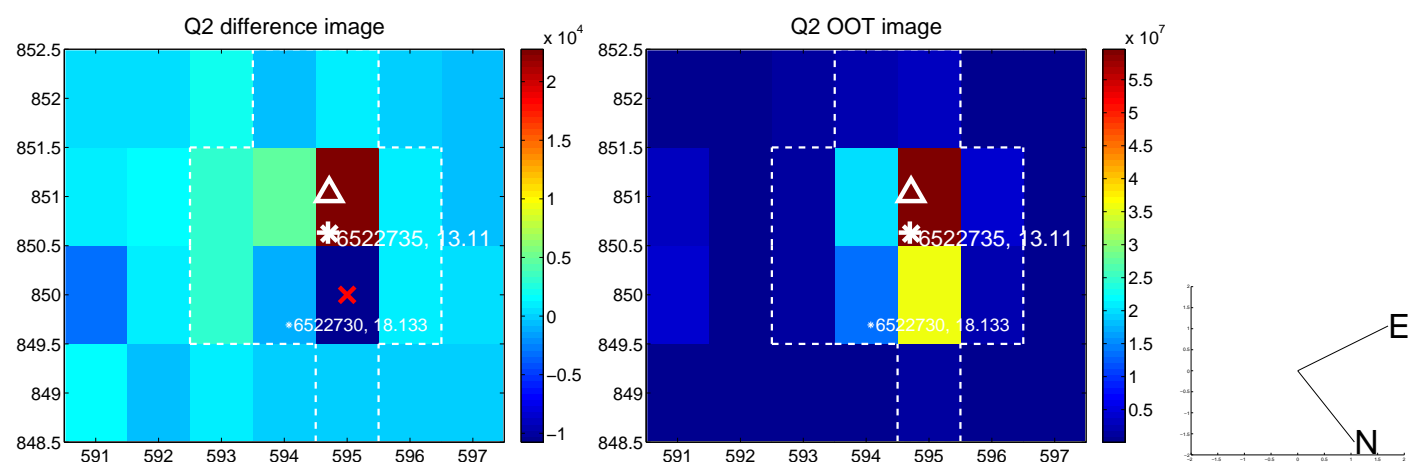
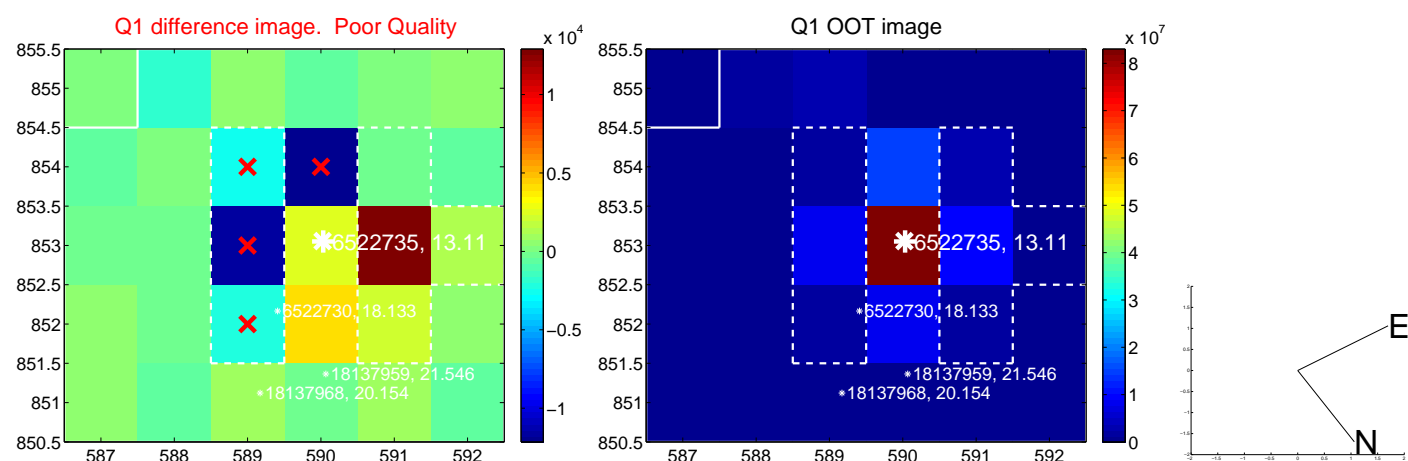
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.062 ± 0.294	0.21	-0.017 ± 0.198	-0.059 ± 0.317
PRF-fit source offset from KIC position	0.111 ± 0.345	0.32	-0.021 ± 0.220	-0.109 ± 0.361
photometric centroid source offset	1.15 ± 0.46	2.49	-0.44 ± 0.43	-1.07 ± 0.47

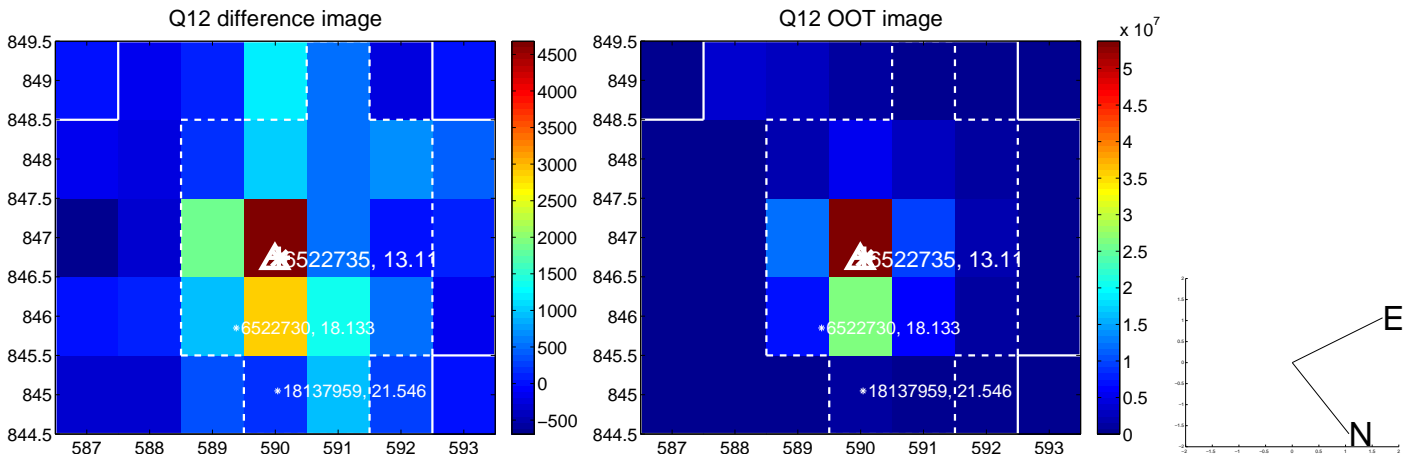
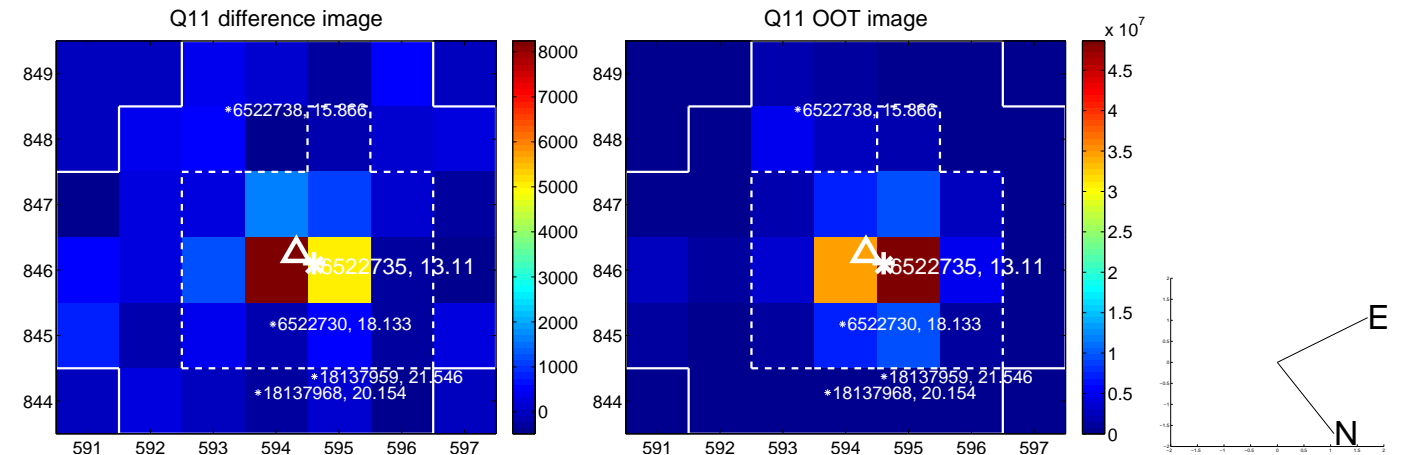
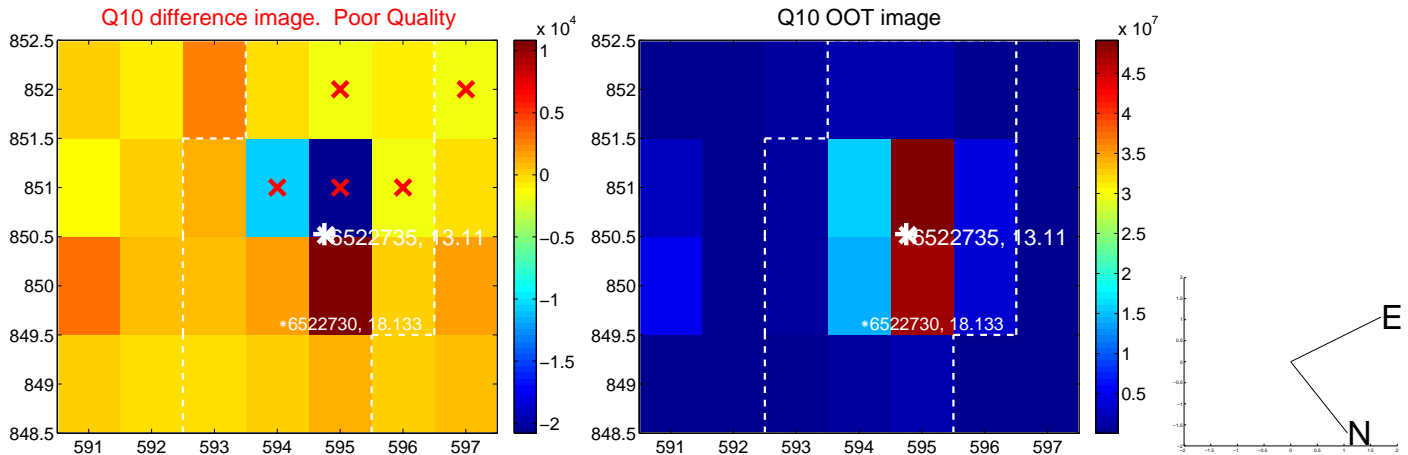
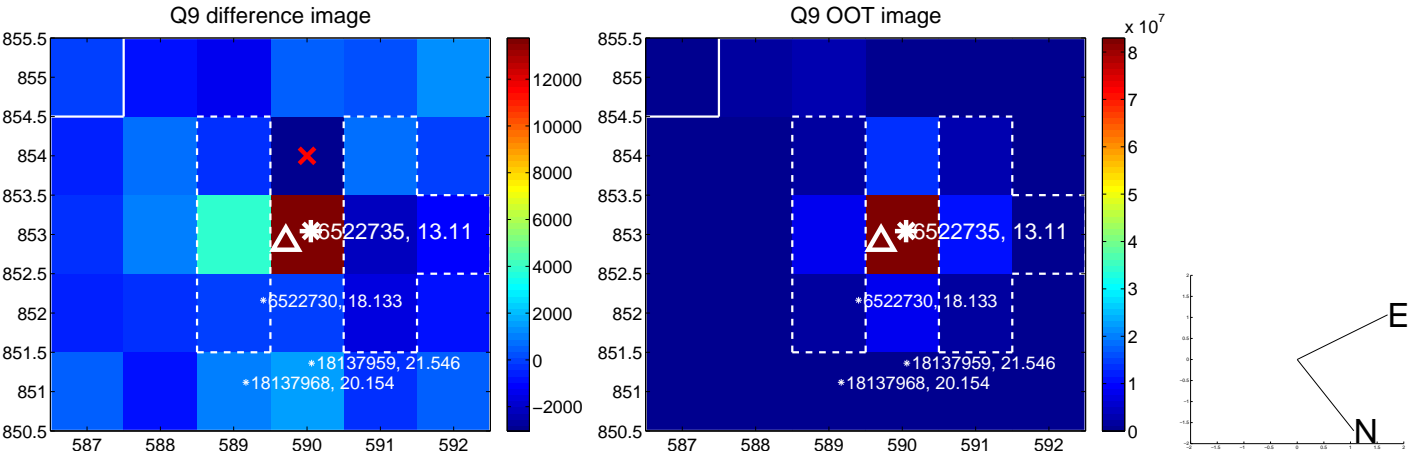


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

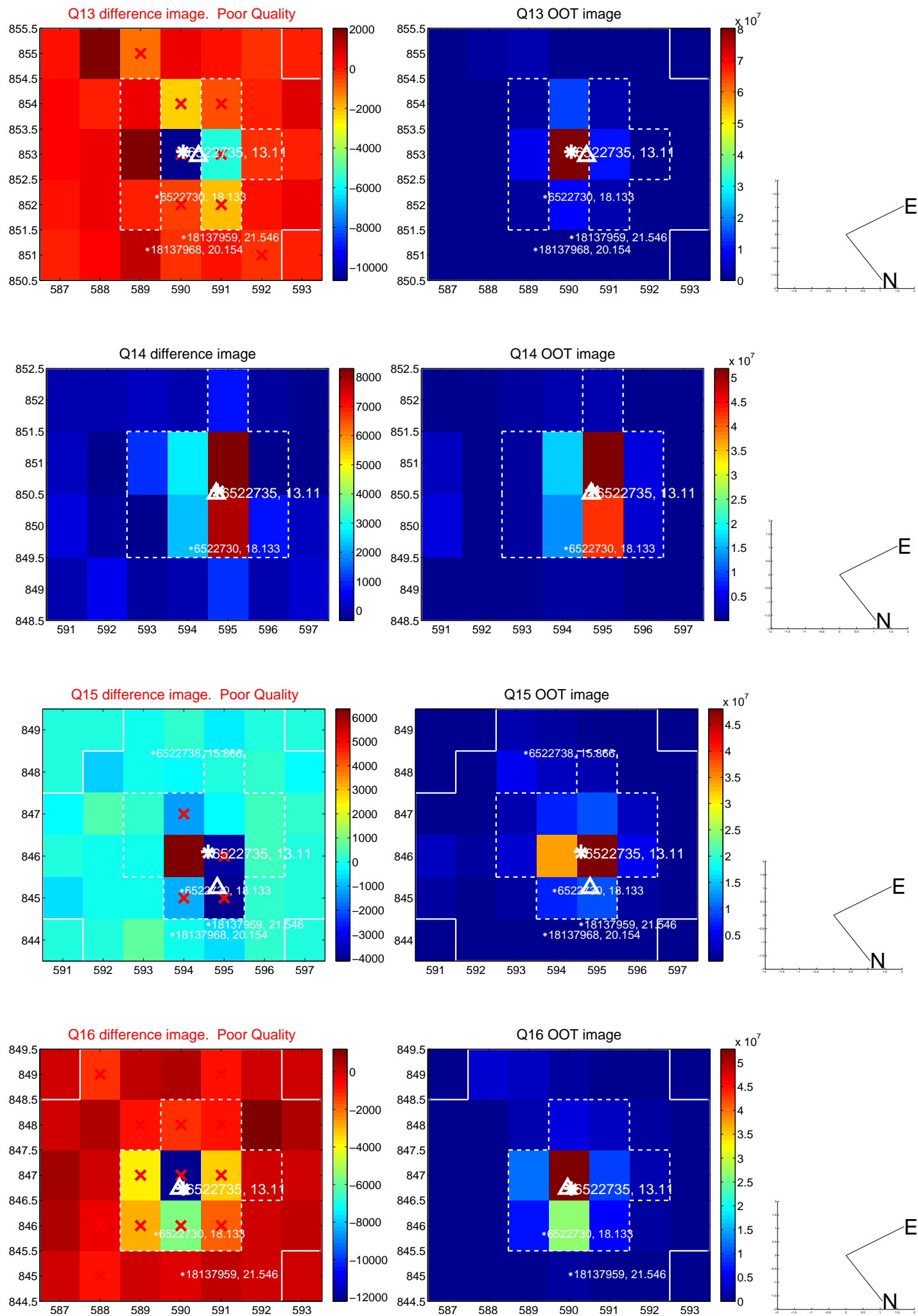
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



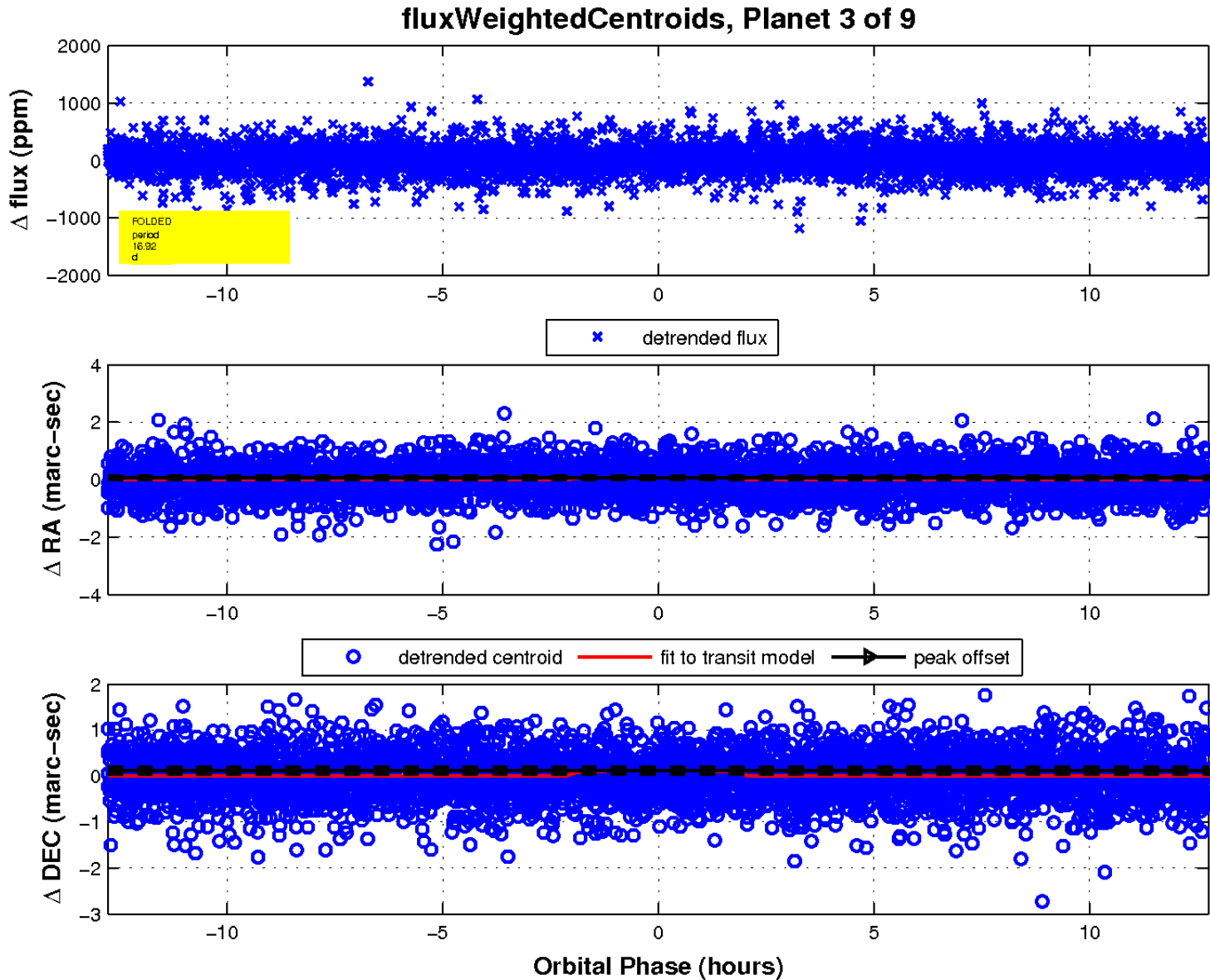
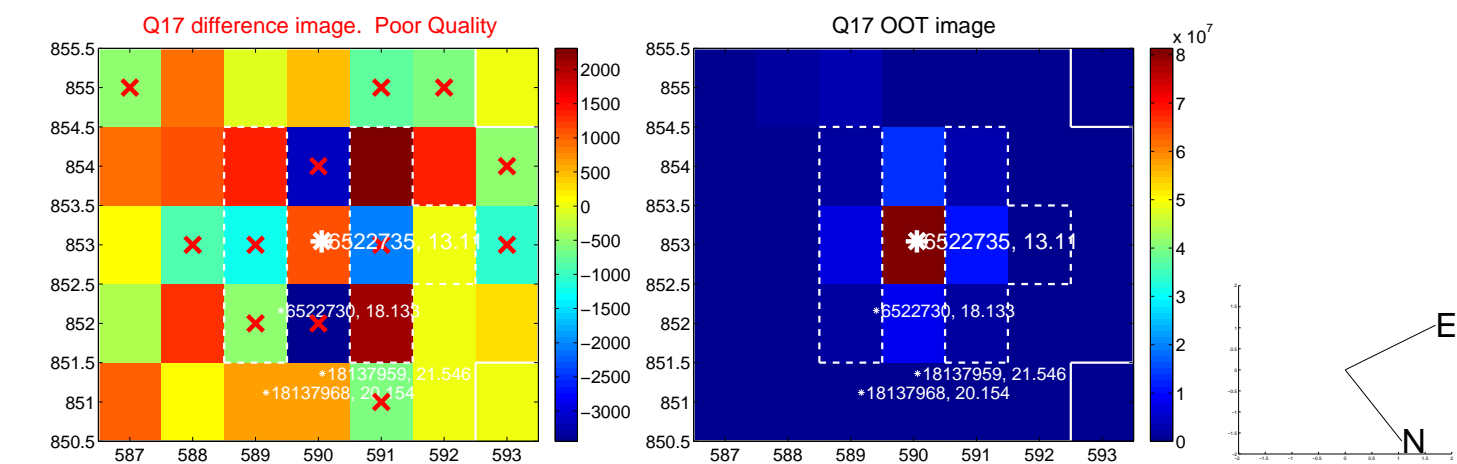
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

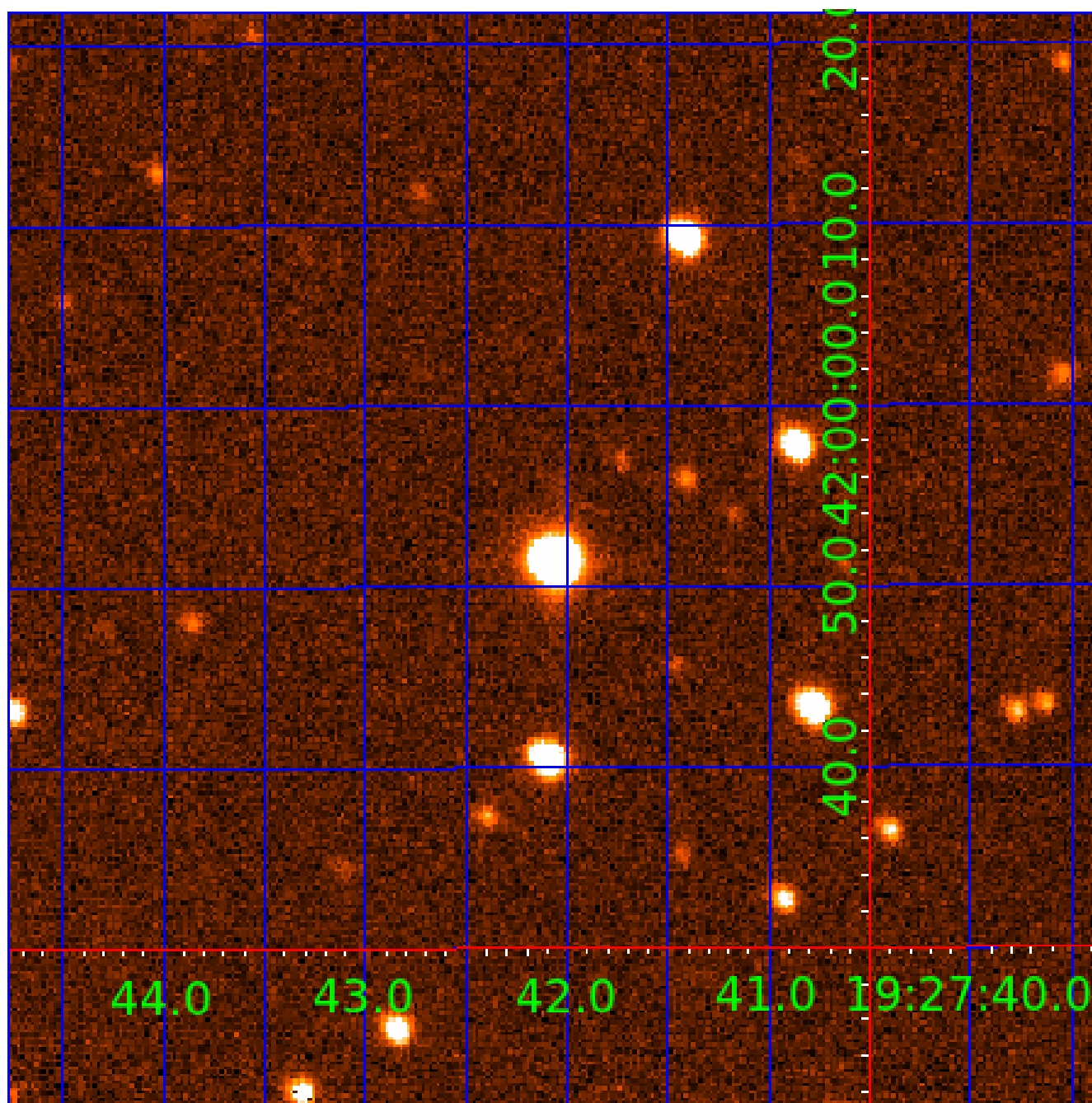


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006522735

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
006522735-01	OBS	No	2.536471	132.265097	36.7	8.777	10.1	8.9	1.74	7170	1.25	4337.07
006522735-02	OBS	No	2.536440	133.513238	38.3	9.982	11.4	10.8	1.74	7170	1.15	4337.15
006522735-03	OBS	No	16.921931	137.872806	157.2	4.259	17.9	4.9	1.74	7170	2.53	345.33
006522735-06	OBS	No	8.727425	132.272232	88.4	1.106	10.3	2.3	1.74	7170	1.70	834.94
006522735-07	OBS	No	63.979141	160.926757	418.7	5.471	13.6	9.9	1.74	7170	4.32	58.63
006522735-08	OBS	No	12.358411	141.401367	404.9	1.165	9.2	8.8	1.74	7170	3.65	525.07
006522735-09	OBS	No	10.632161	132.169697	360.5	1.109	8.6	8.1	1.74	7170	3.37	641.71

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006522735-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
006522735-02	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—SAME_NTL_PERIOD
006522735-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
006522735-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
006522735-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
006522735-08	OBS	FP	0.00	1	0	1	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—HALO_GHOST
006522735-09	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

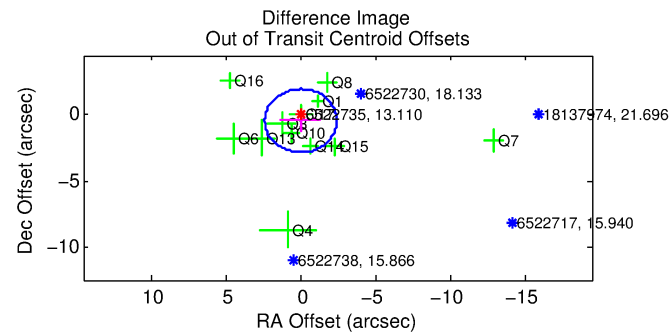
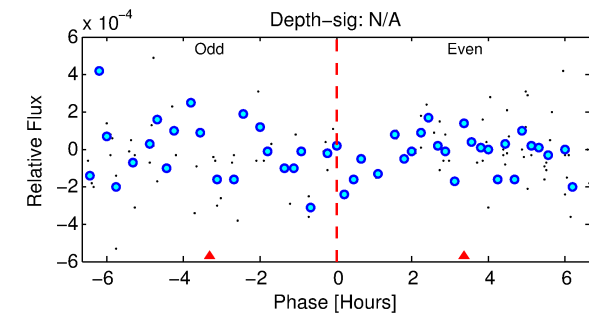
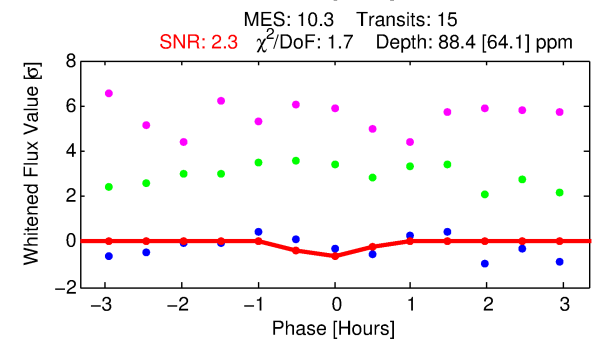
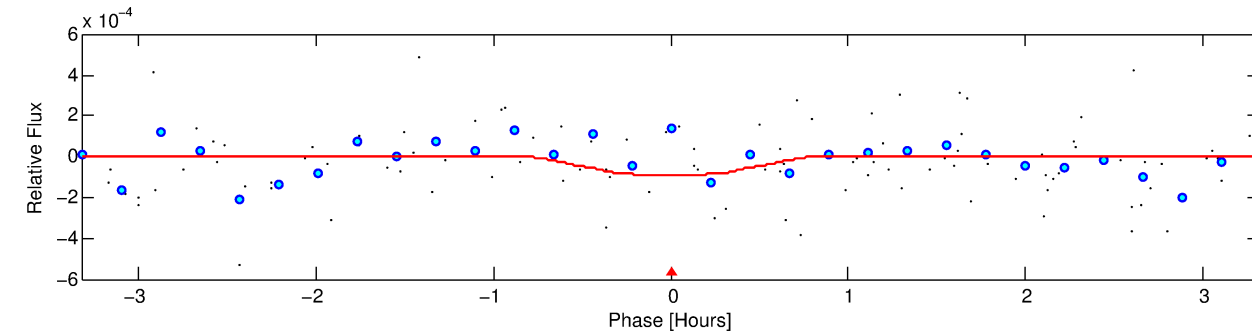
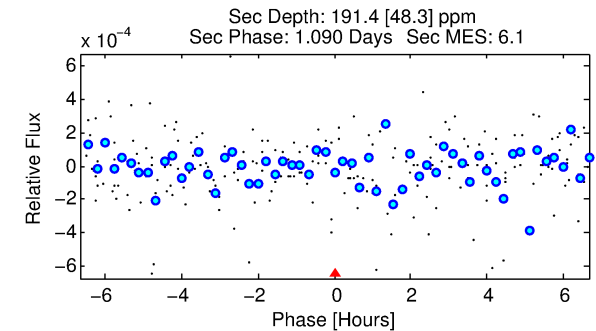
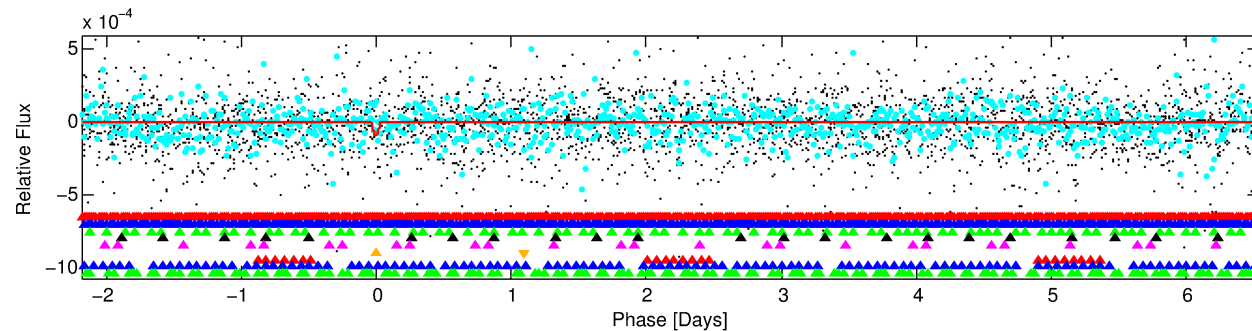
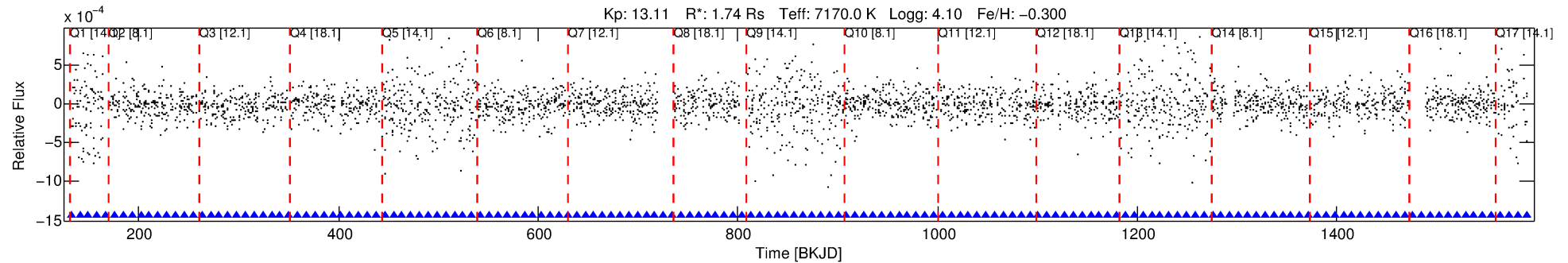
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006522735-06

No Significant Match Found

DV One-Page Summary

KIC: 6522735 Candidate: 6 of 9 Period: 8.727 d



DV Fit Results:

Period = 8.72743 [0.00025] d
Epoch = 132.2722 [0.0249] BKJD
Rp/R* = 0.0089 [0.0264]
a/R* = 54.91 [925.37]
b = 0.43 [31.93]
Seff = 834.94 [312.03]
Teq = 1371 [128] K
Rp = 1.70 [5.05] Re
a = 0.0927 [0.0225] AU
Ag = 314.28 [1863.88] [0.17σ]
Teffp = 8923 [13212] K [0.57σ]

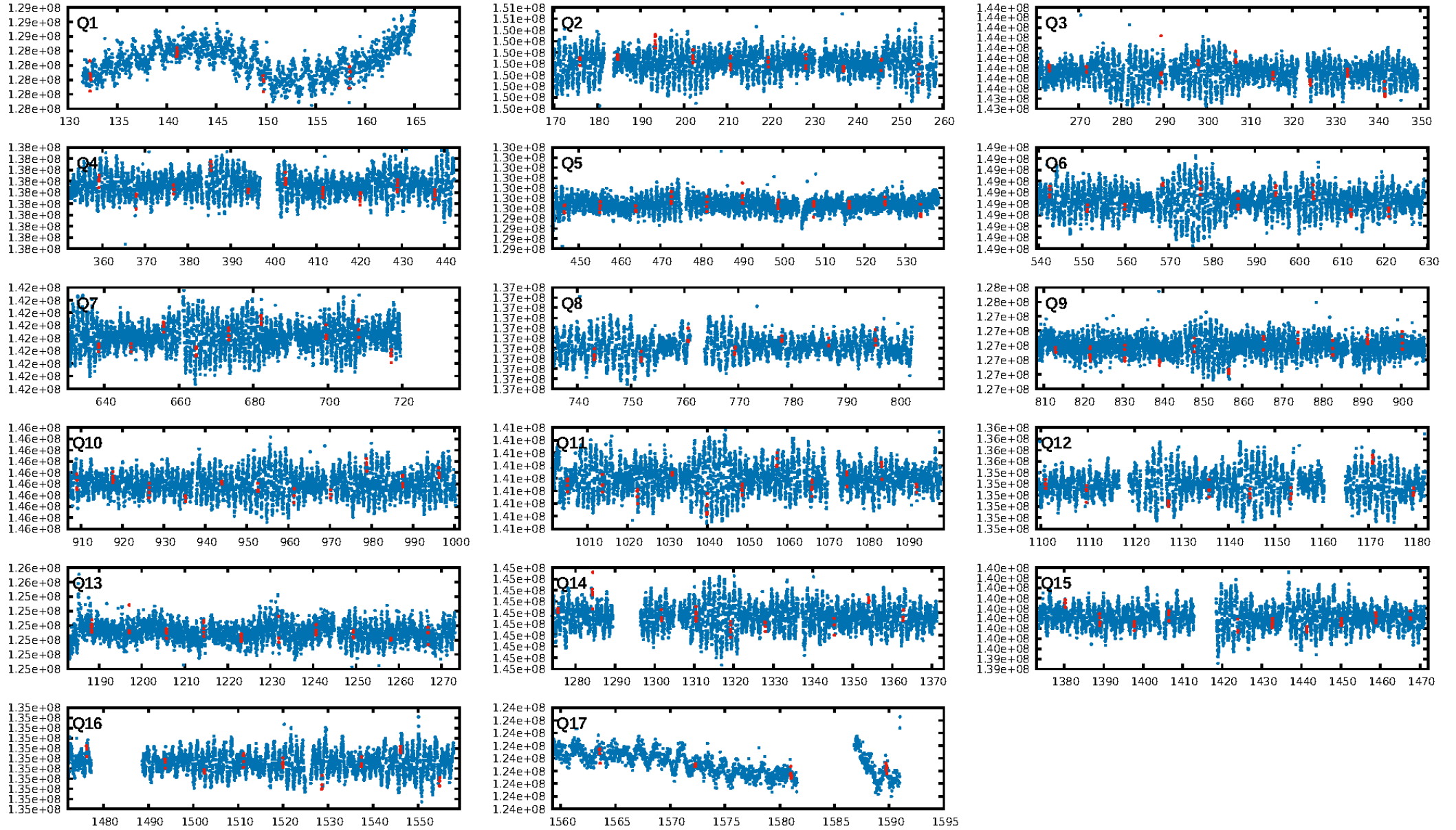
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [16.80σ]
LongPeriod-sig: 100.0% [29.18σ]
ModelChiSquare2-sig: 11.1%
ModelChiSquareGof-sig: 97.9%
Bootstrap-pfa: 6.71e-61
RollingBand-fgt: 1.00 [14/14]
GhostDiagnostic-chr: 0.5484
Centroid-sig: 22.8%
Centroid-so: 1.386 arcsec [1.34σ]
OotOffset-rm: 0.449 arcsec [0.56σ]
KicOffset-rm: 0.490 arcsec [0.57σ]
OotOffset-st: 3/3/3/3 [12]
KicOffset-st: 3/3/3/3 [12]
DiffImageQuality-fgm: 0.42 [5/12]
DiffImageOverlap-fno: 0.94 [16/17]

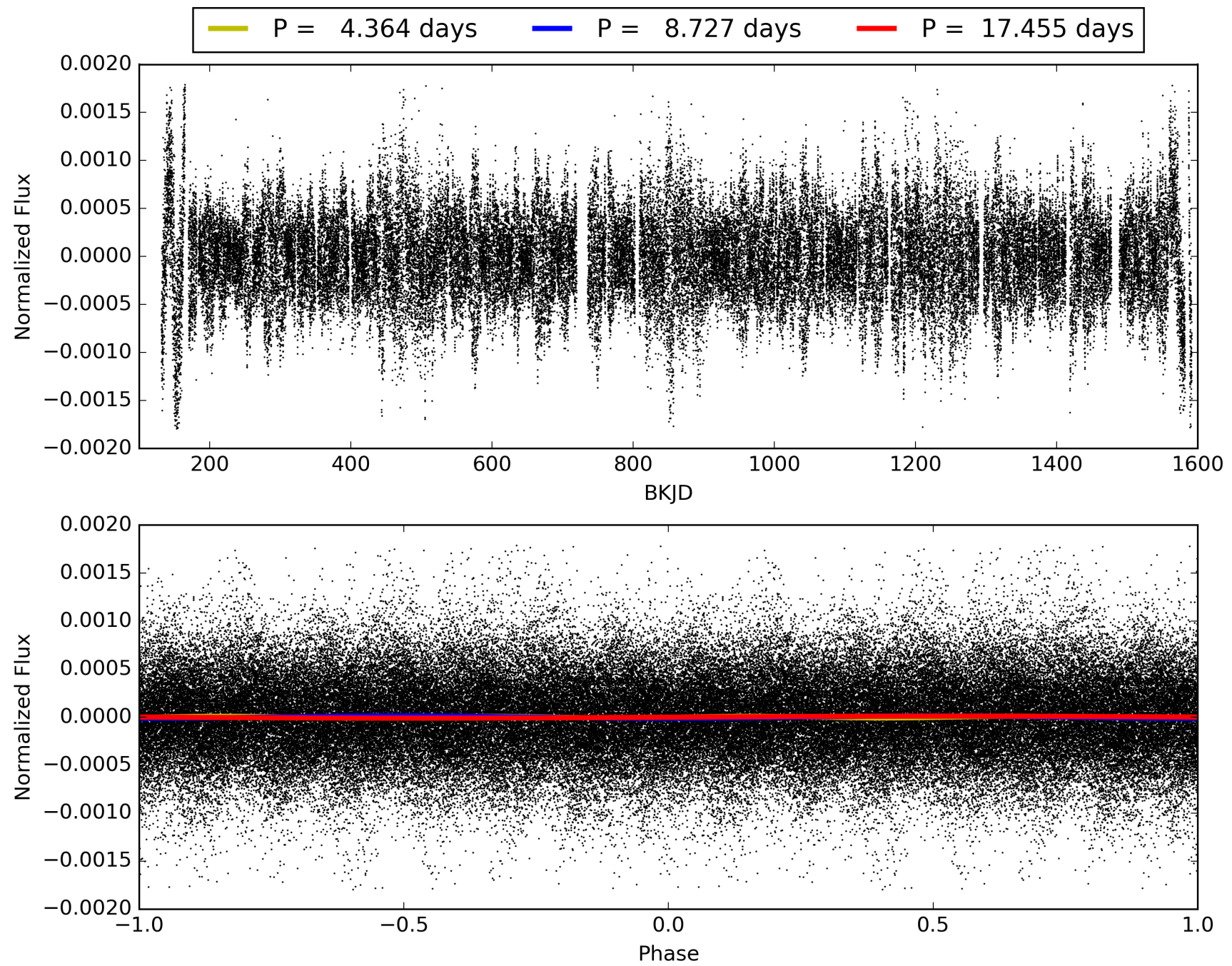
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 08:44:24 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006522735-06, PDC Light Curves

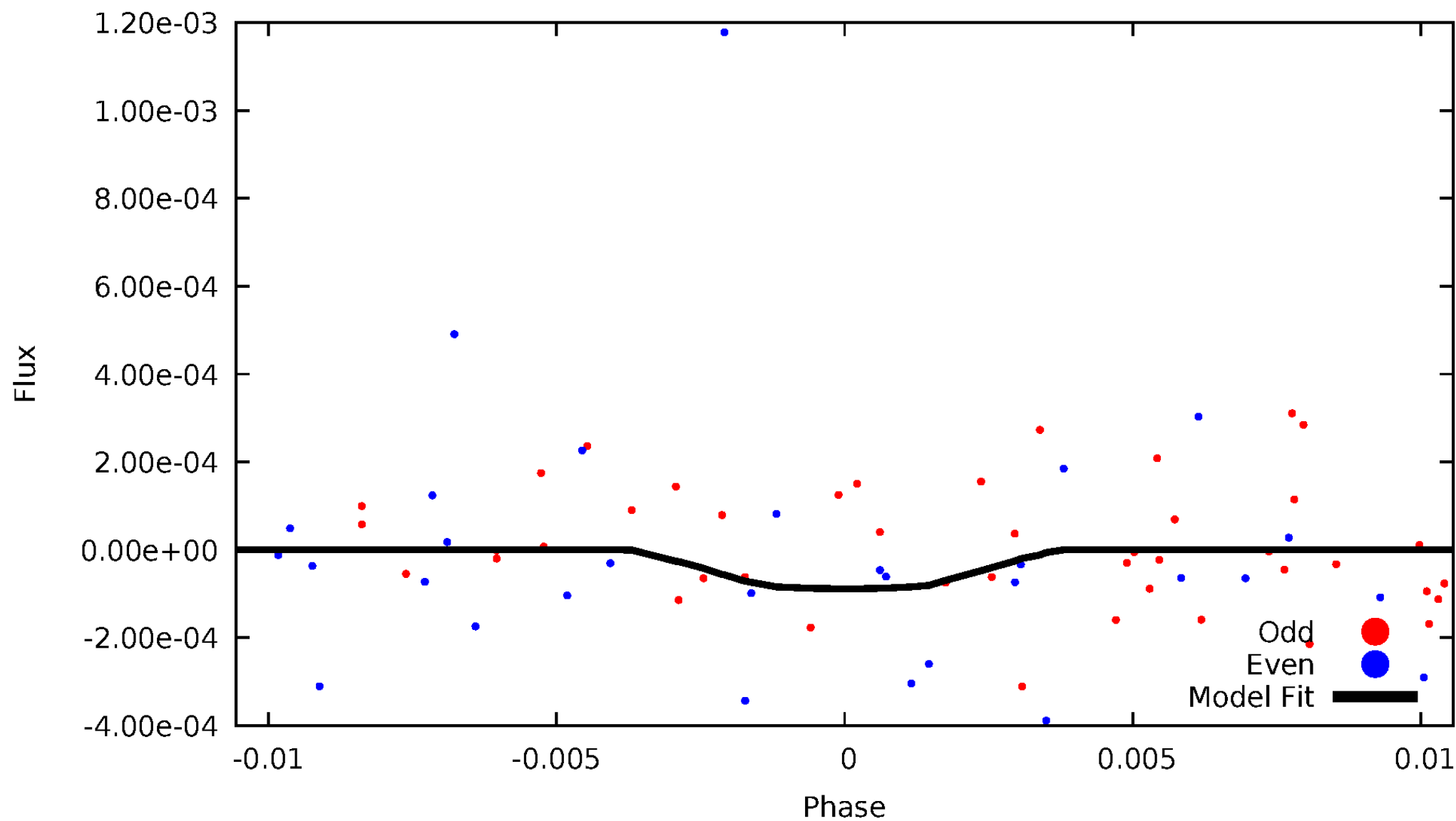


TCE 006522735-06



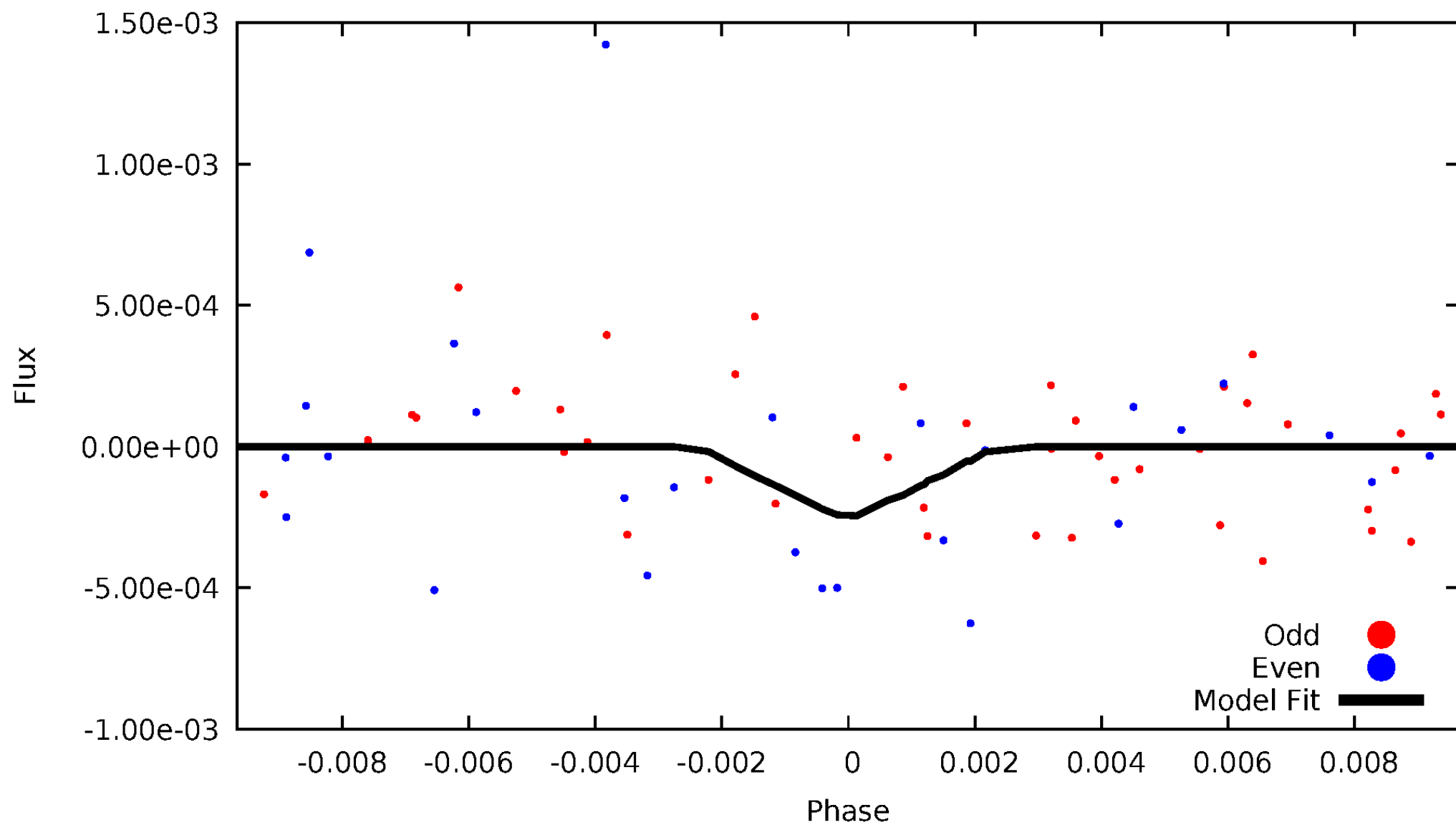
DV Odd/Even

TCE 006522735-06



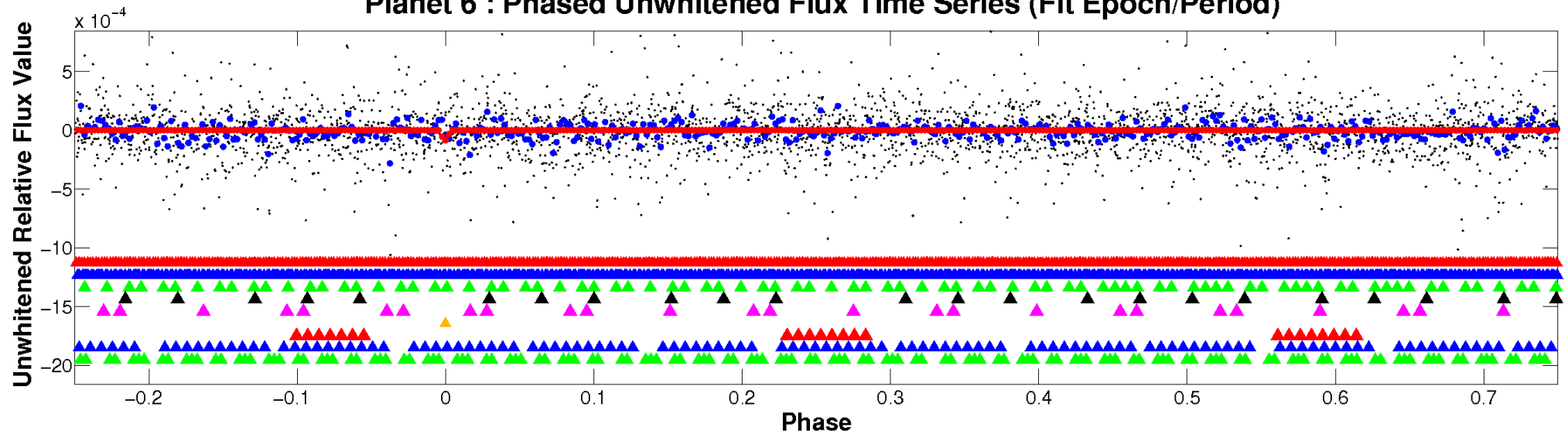
ALT Odd/Even

TCE 006522735-06

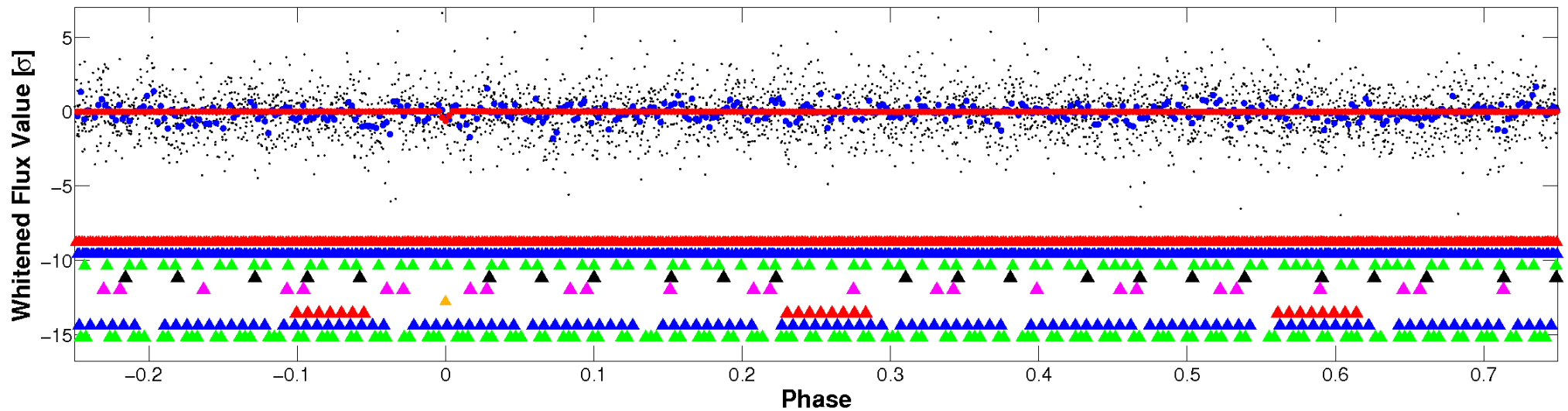


Non-Whitened Vs. Whitened Light Curve

Planet 6 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

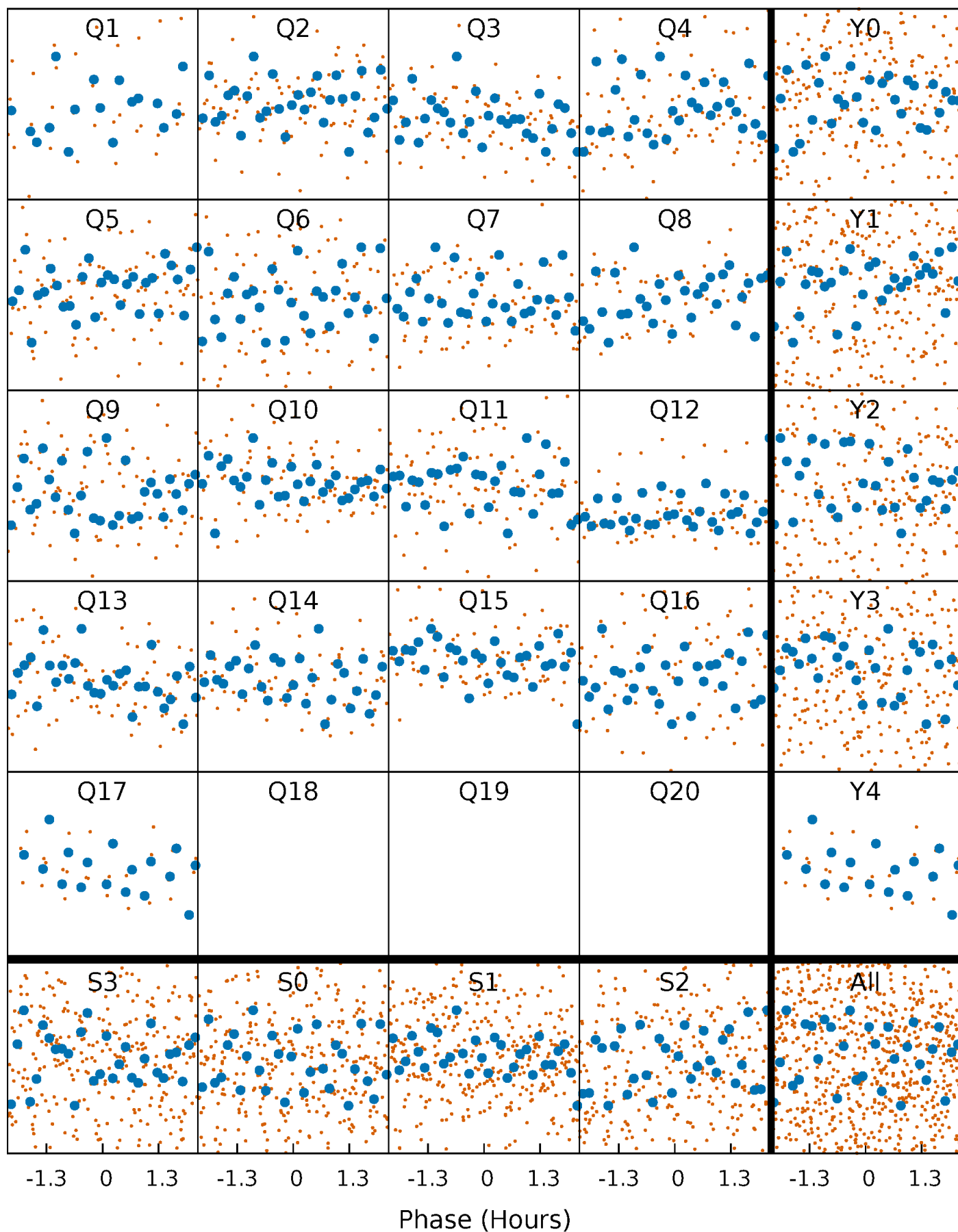


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



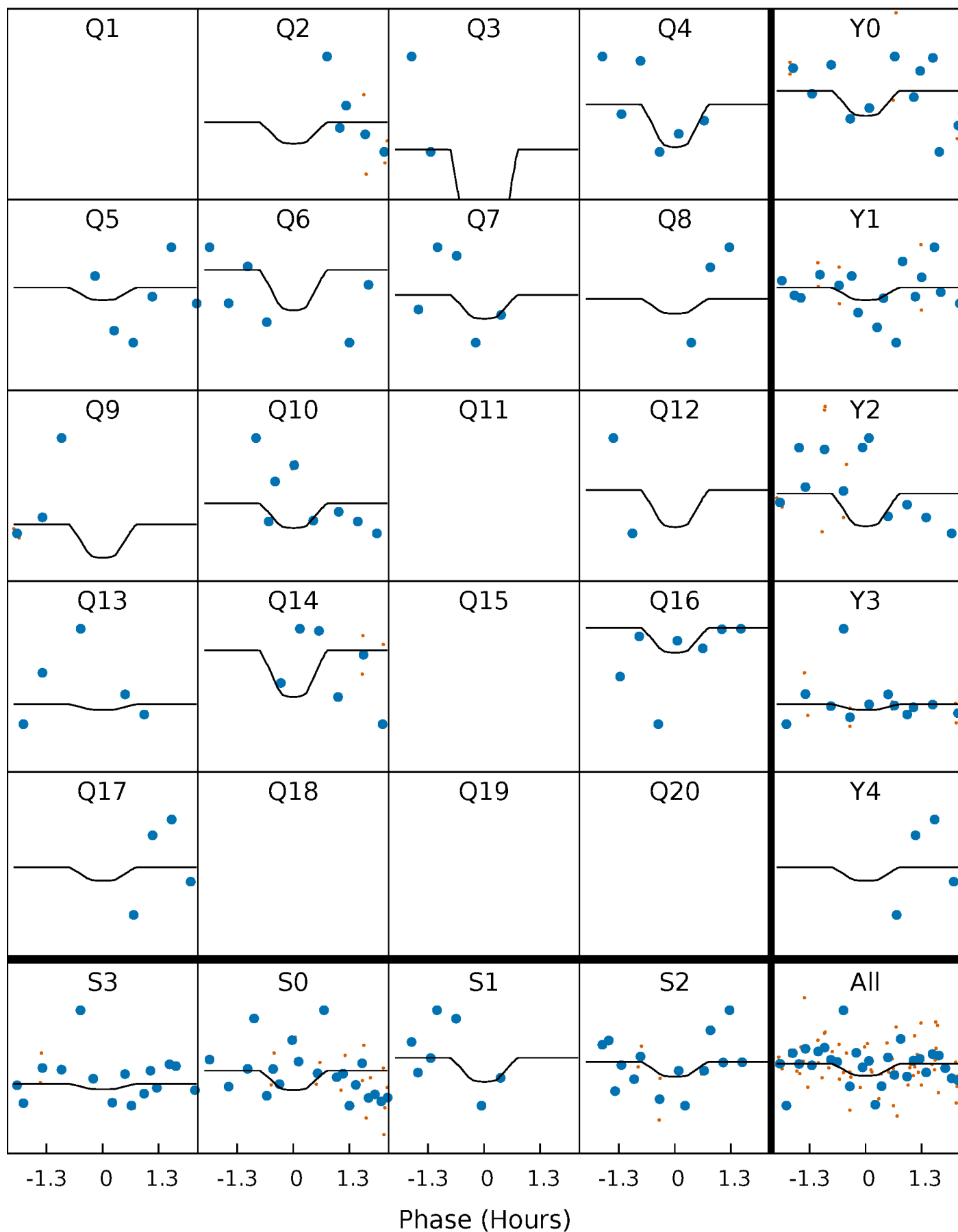
PDC Quarter-Phased Transit Curves

TCE 006522735-06 P= 8.727425 Days $T_0=132.272232$ (BKJD)



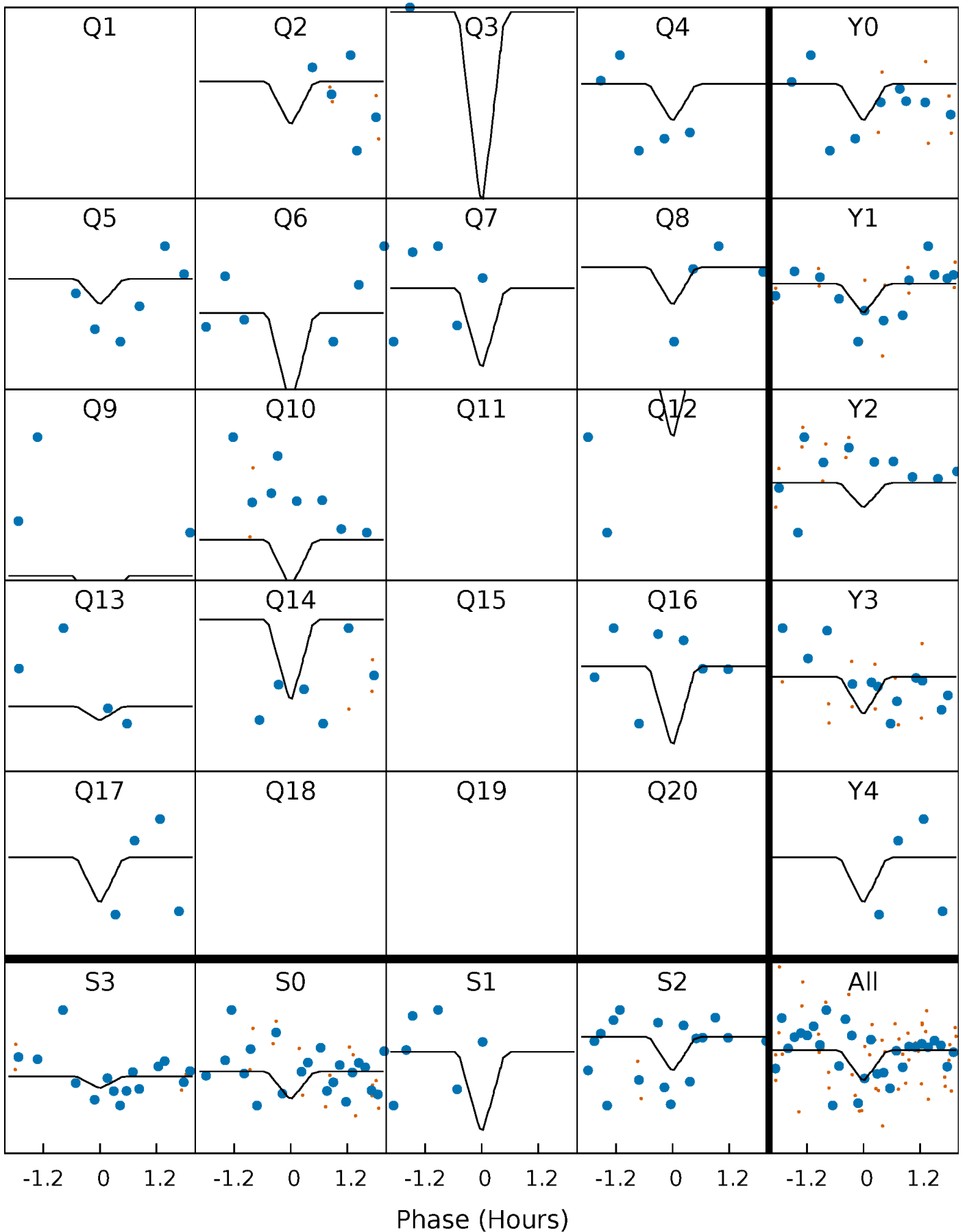
DV Quarter-Phased Transit Curves

TCE 006522735-06 P= 8.727425 Days $T_0=132.272232$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

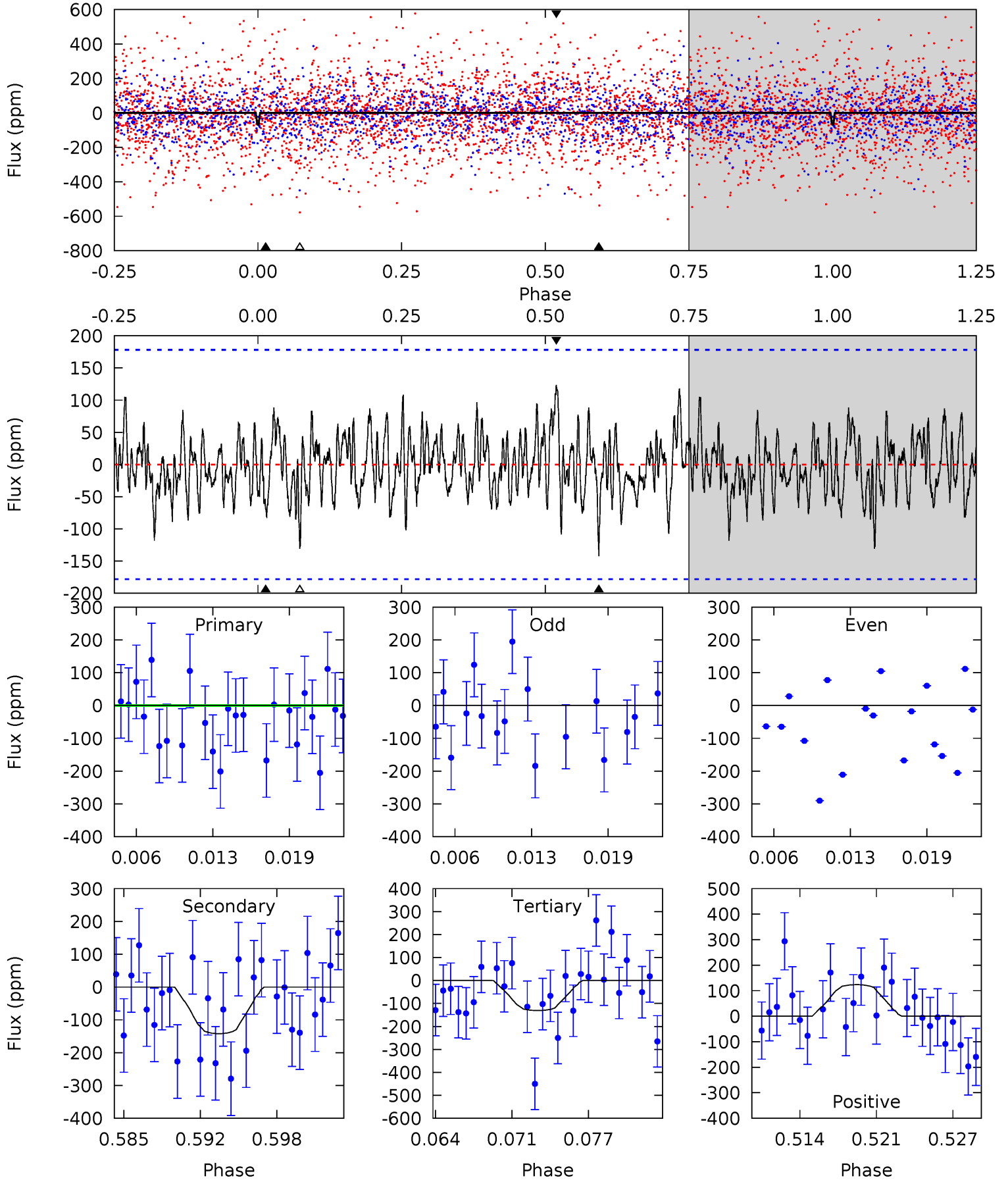
TCE 006522735-06 P= 8.727443 Days $T_0=132.285271$ (BKJD)



DV Model-Shift Uniqueness Test

006522735-06, P = 8.727425 Days, E = 123.544807 Days

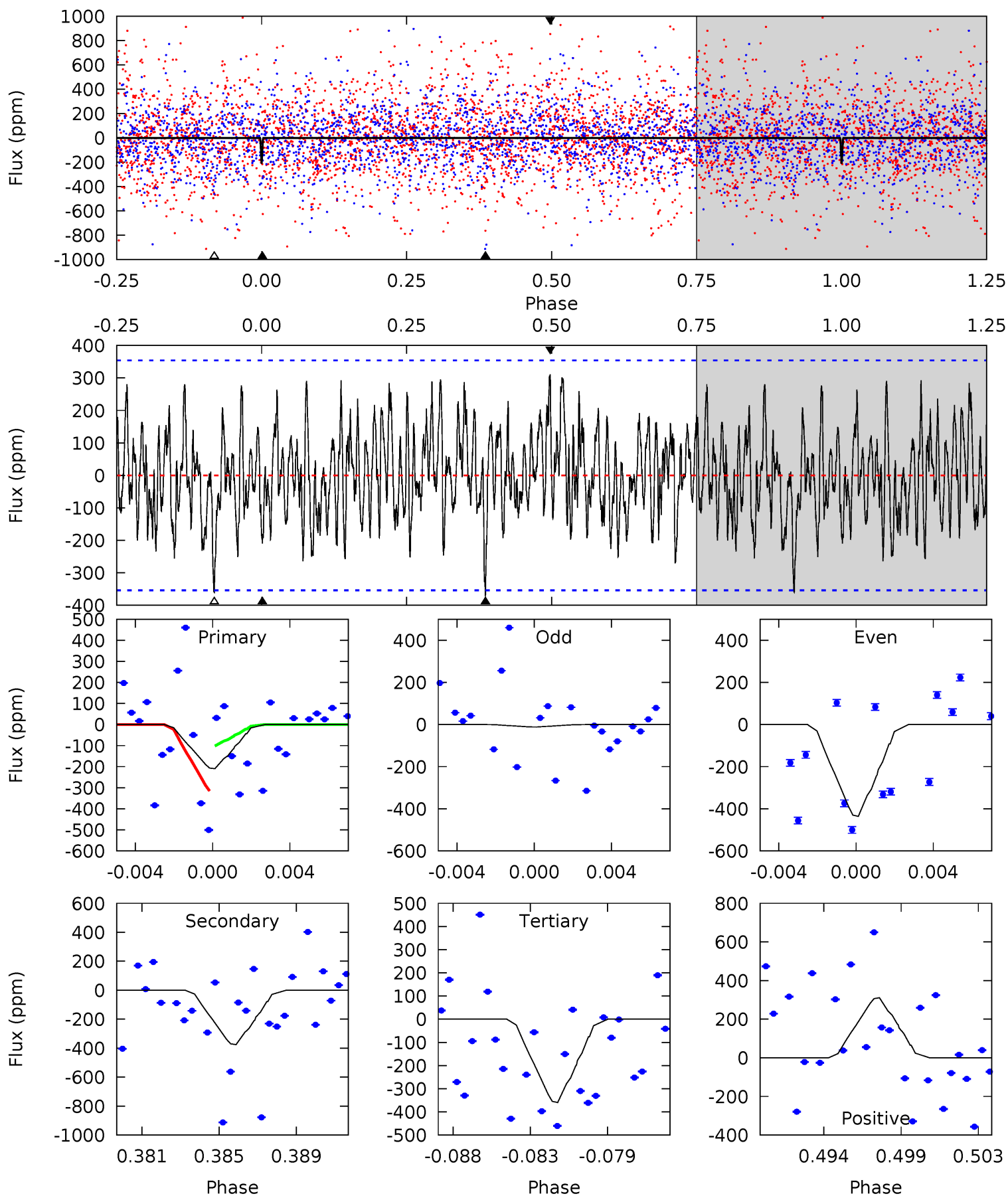
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.97	4.08	3.75	3.55	5.11	2.73	1.20	-1.79	-1.58	0.32	0.53	2.08	0.57	0.47	0.16



Alt Model-Shift Uniqueness Test

006522735-06, P = 8.727443 Days, E = 123.557828 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.07	5.50	5.27	4.55	5.18	2.85	1.73	-2.20	-1.48	0.23	0.95	3.11	0.56	0.45	1.57



Stellar Parameters For KIC 006522735

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7170^{+199}_{-274}	$4.101^{+0.180}_{-0.180}$	$-0.300^{+0.250}_{-0.350}$	$1.741^{+0.522}_{-0.475}$	$1.397^{+0.205}_{-0.228}$	$0.373^{+0.384}_{-0.177}$
	+3%/-4%	+4%/-4%	+83%/-117%	+30%/-27%	+15%/-16%	+103%/-47%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 006522735-06 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-142 ± 35	$4.09^{+3.93}_{-2.83}$	1914^{+135}_{-151}	5263^{+4997}_{-1242}	40^{+401}_{-31}
Alt.	-375 ± 68	$4.69^{+4.36}_{-3.21}$	1901^{+148}_{-121}	6284^{+7225}_{-1685}	80^{+693}_{-60}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

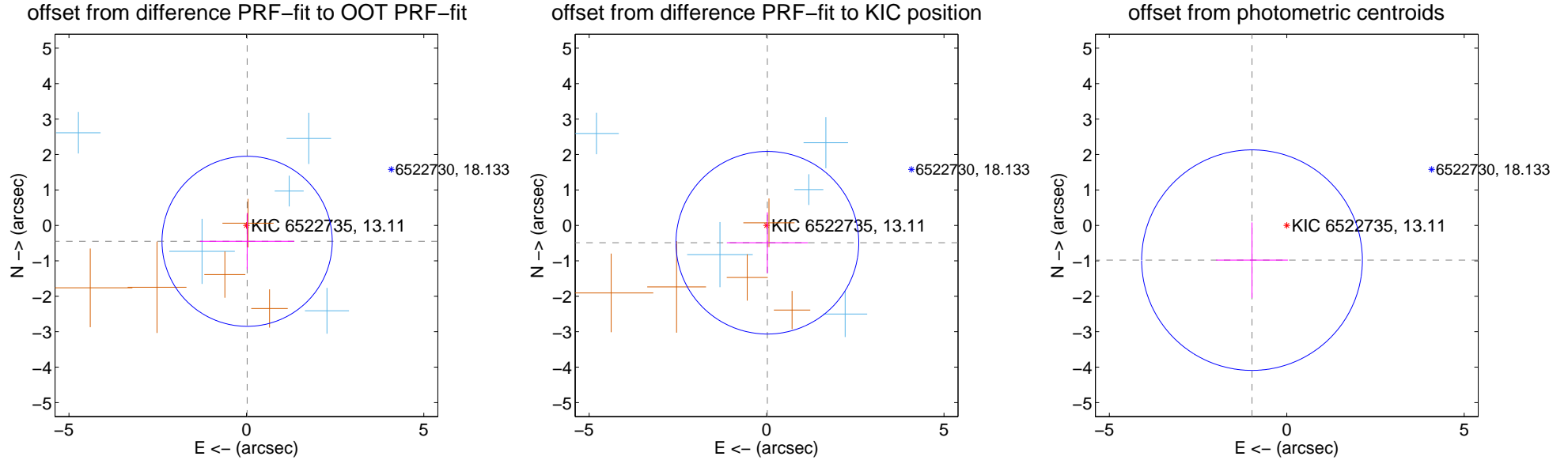
DV Centroid Data

Supplemental centroid analysis for 006522735-06. Kepler magnitude: 13.11. Transit SNR 2.28

There are 5 quarters with good PRF difference image offsets

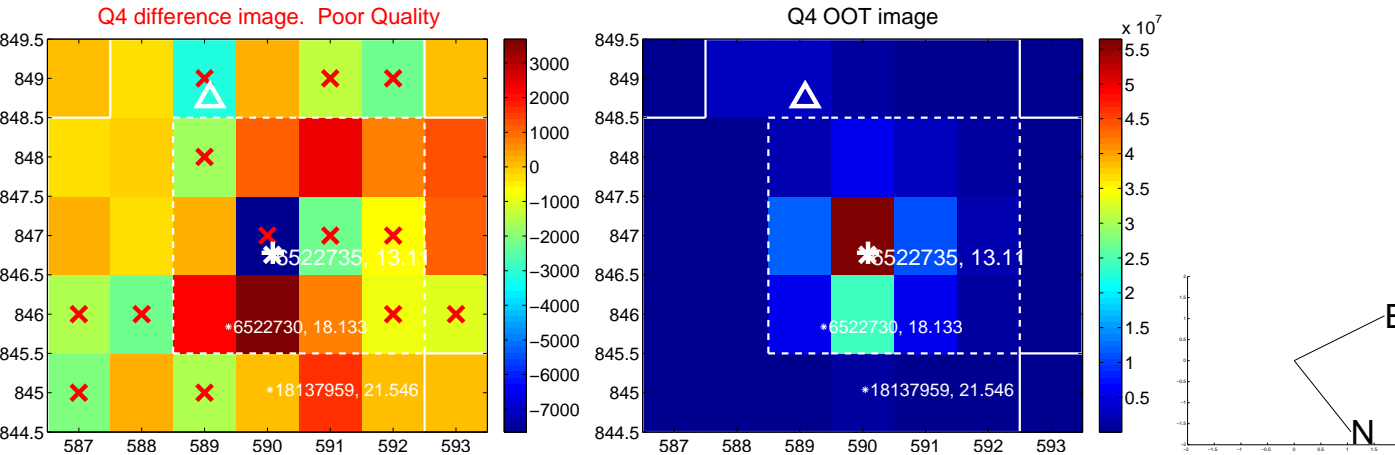
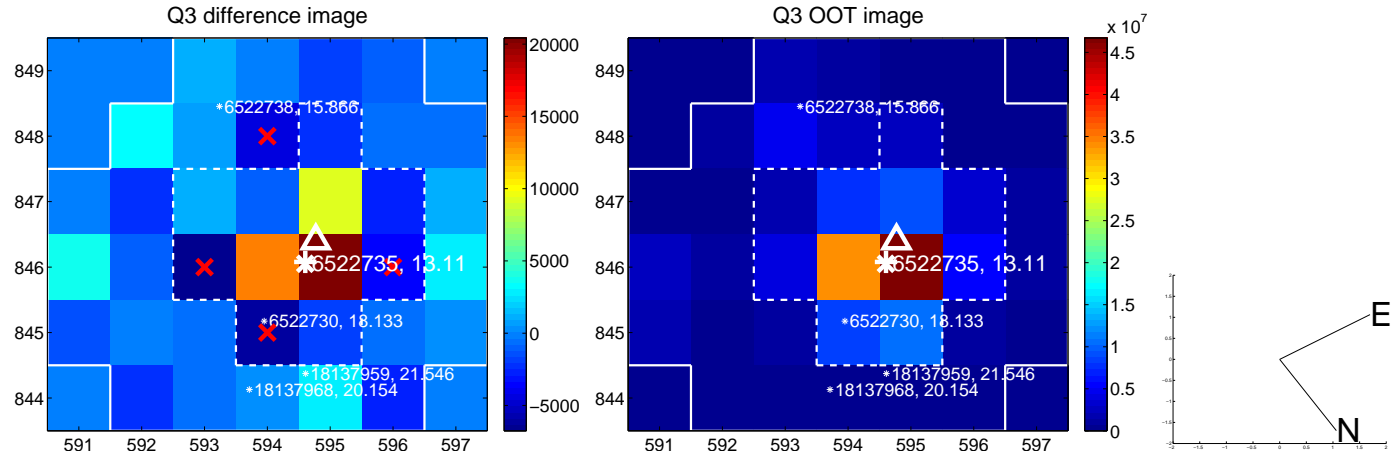
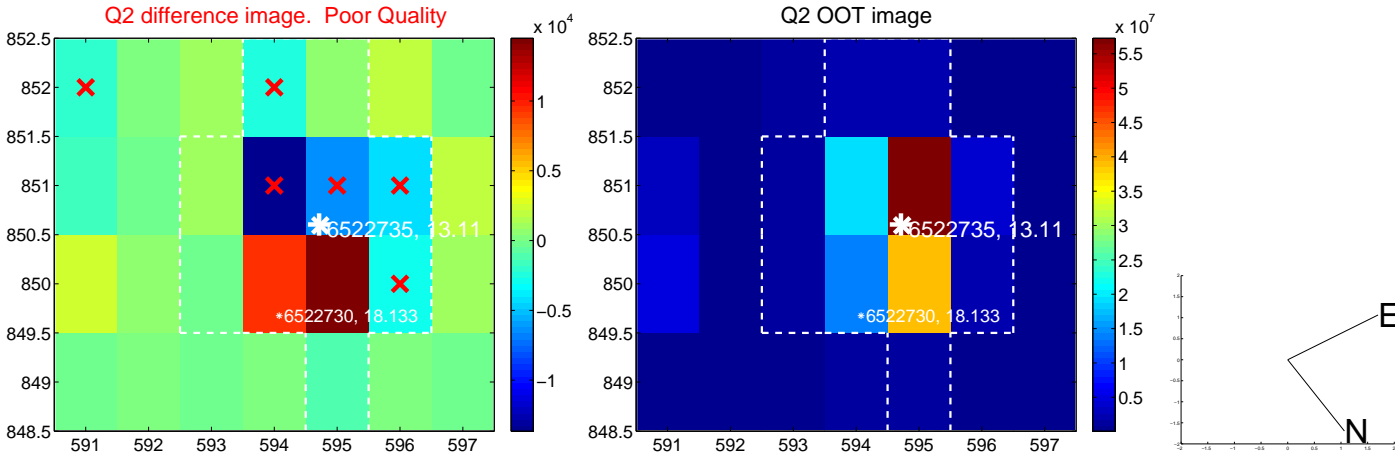
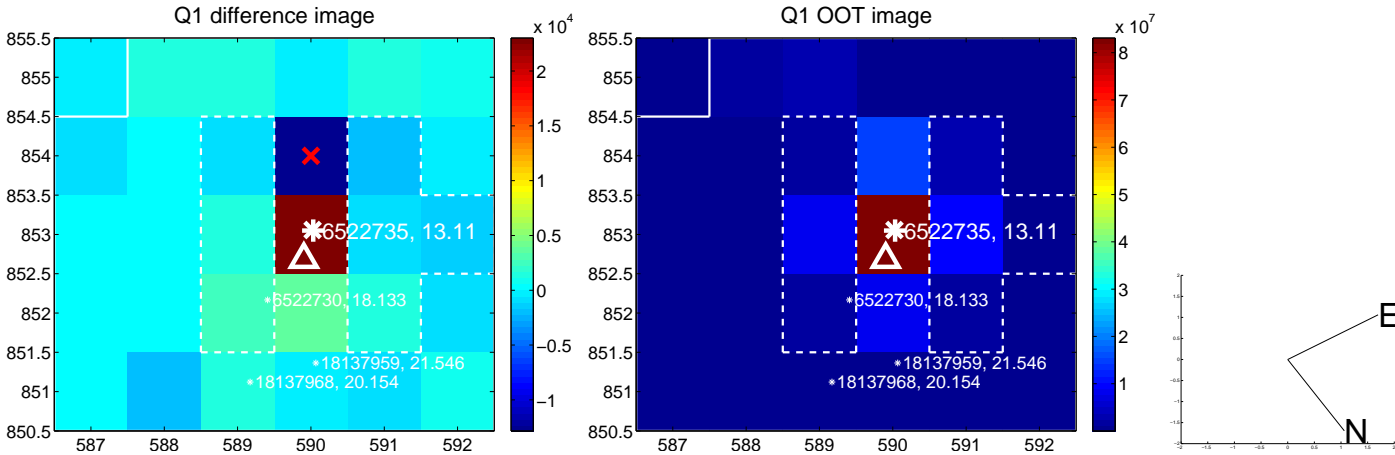
The direct PRF centroid is offset from the target star catalog position by about 0.02 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.449 ± 0.800	0.56	-0.021 ± 1.326	-0.449 ± 0.797
PRF-fit source offset from KIC position	0.490 ± 0.859	0.57	-0.022 ± 1.142	-0.489 ± 0.859
photometric centroid source offset	1.39 ± 1.04	1.34	0.98 ± 1.01	-0.98 ± 1.06

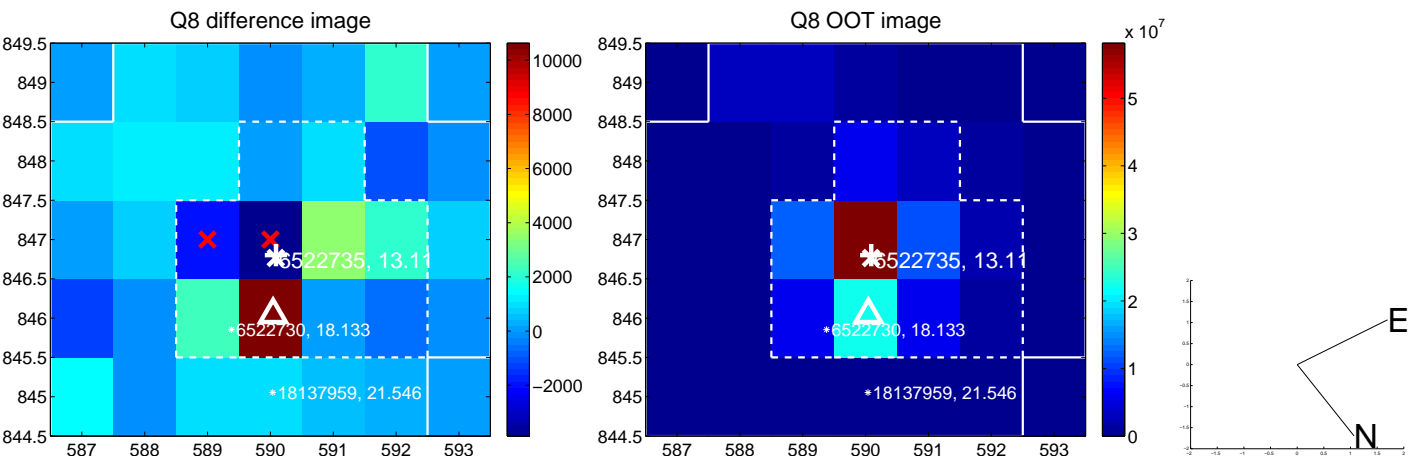
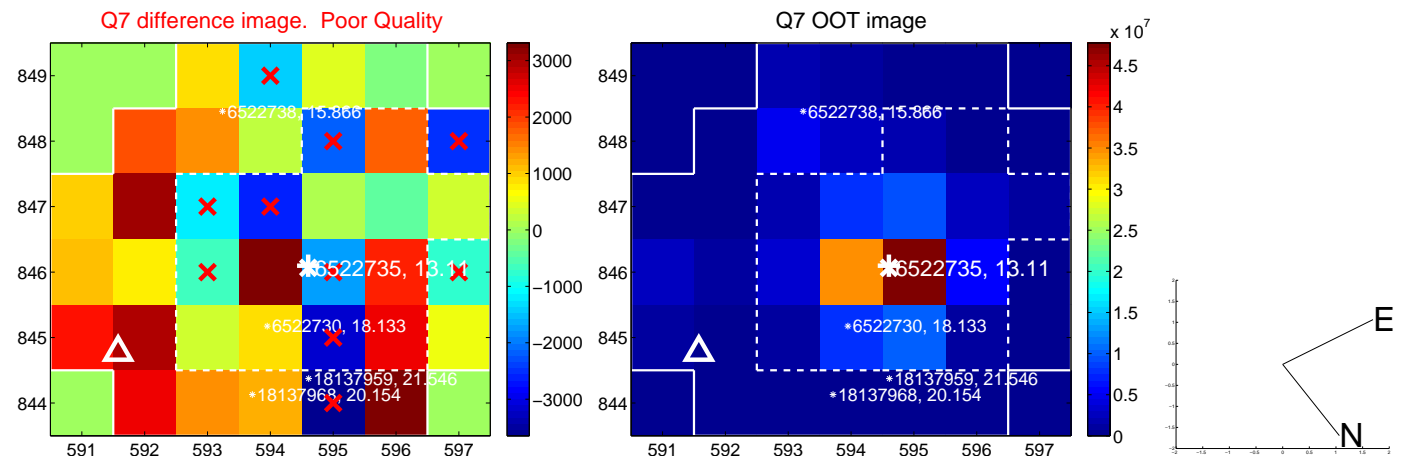
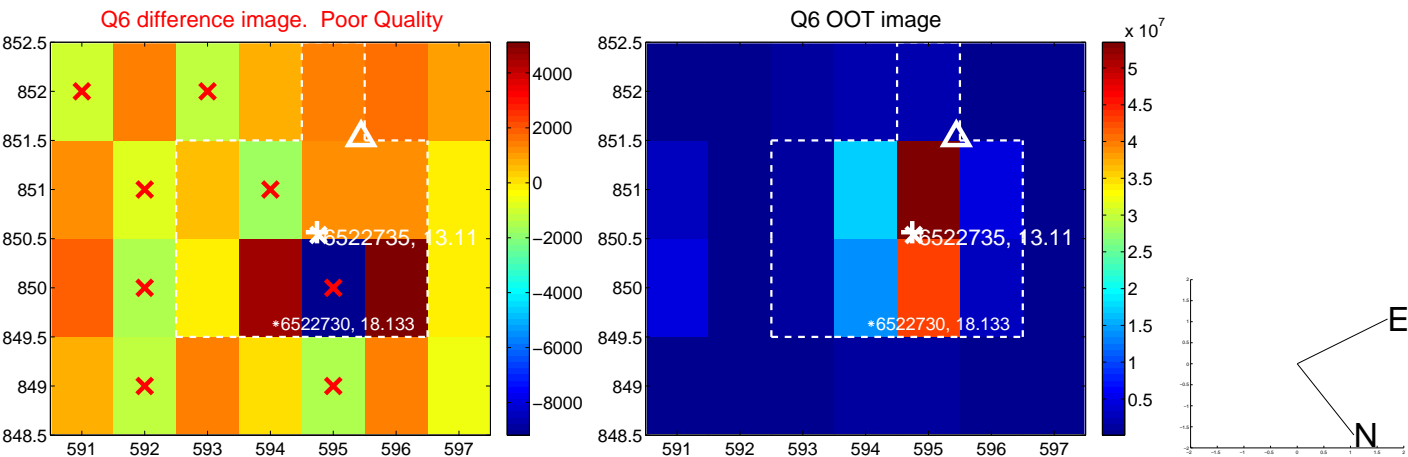
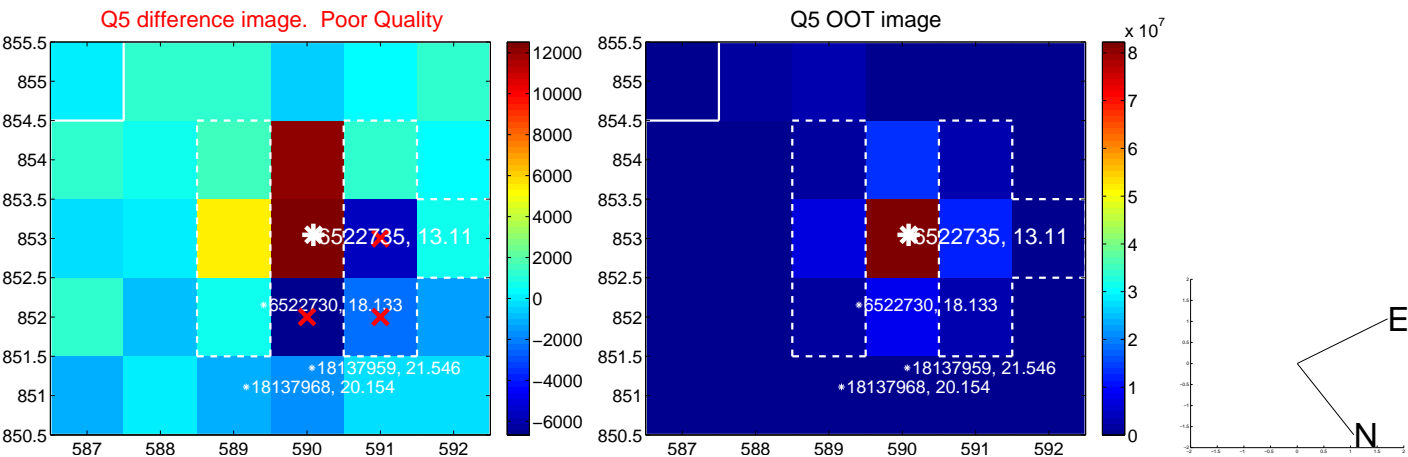


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

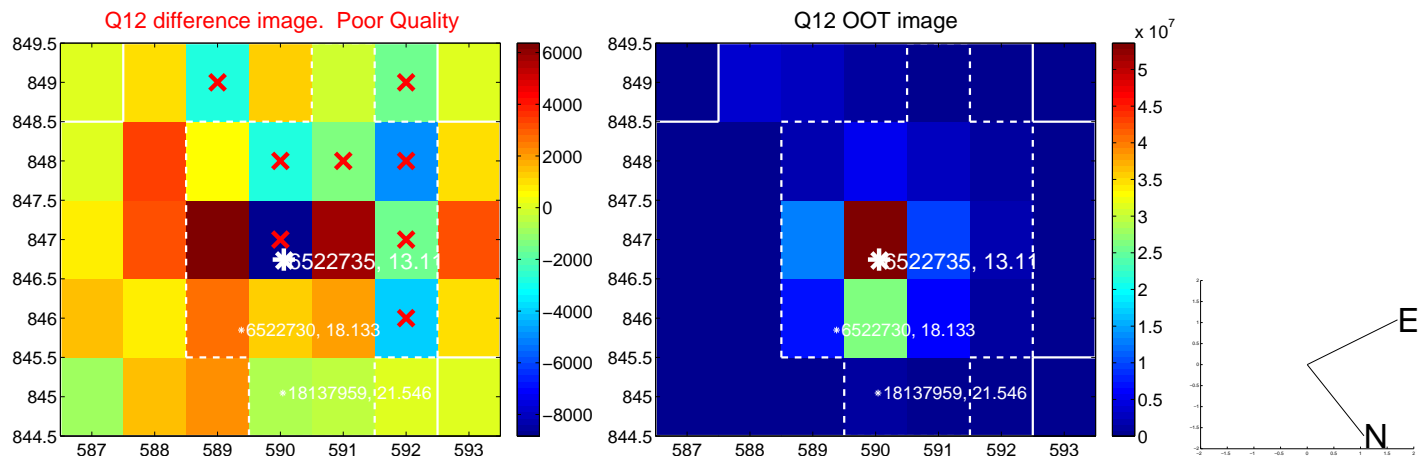
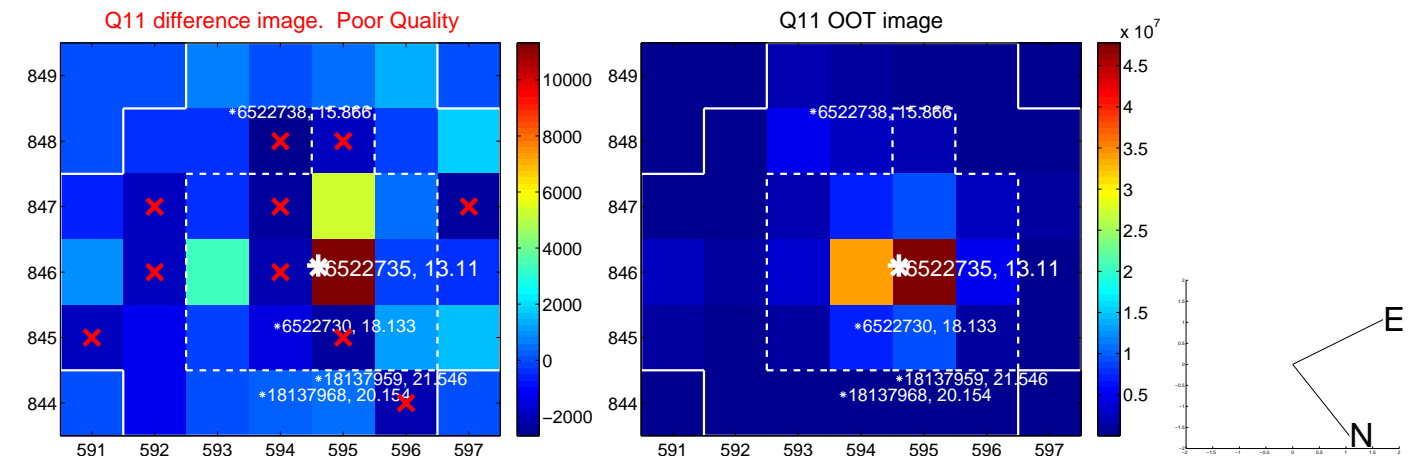
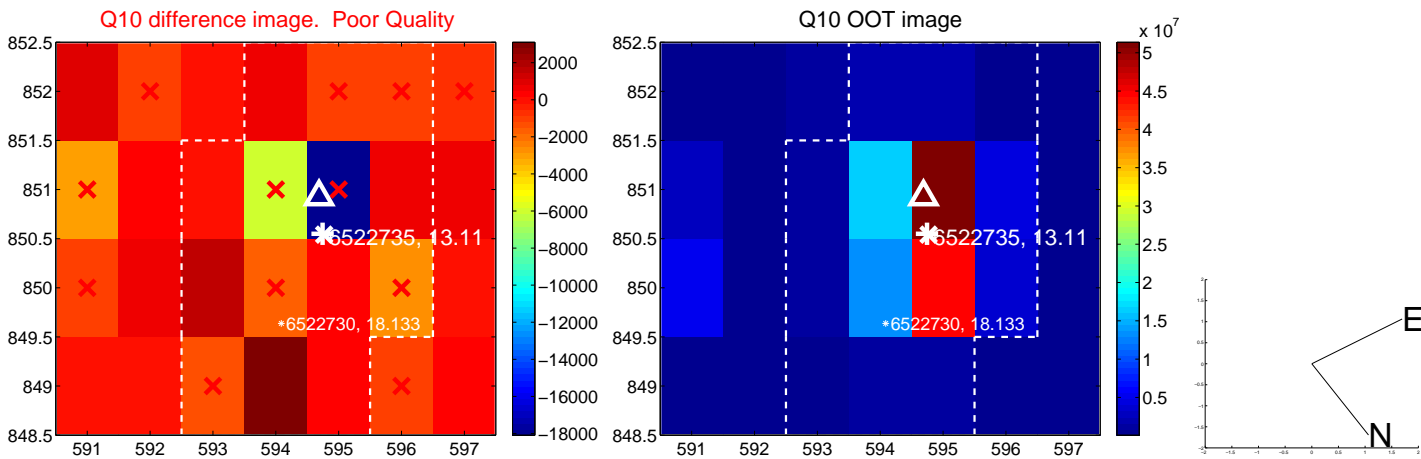
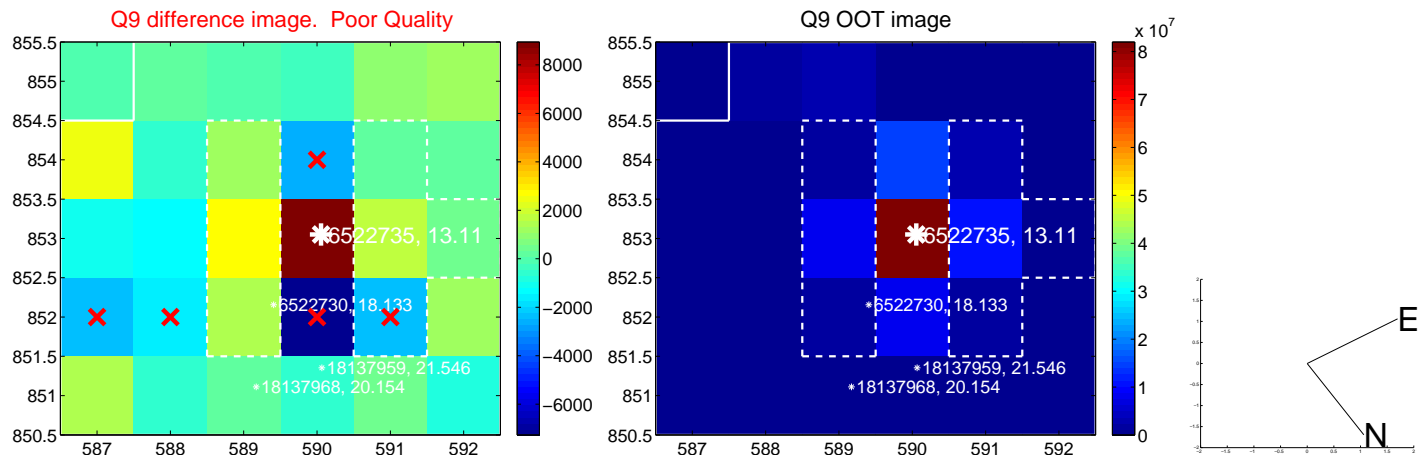
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



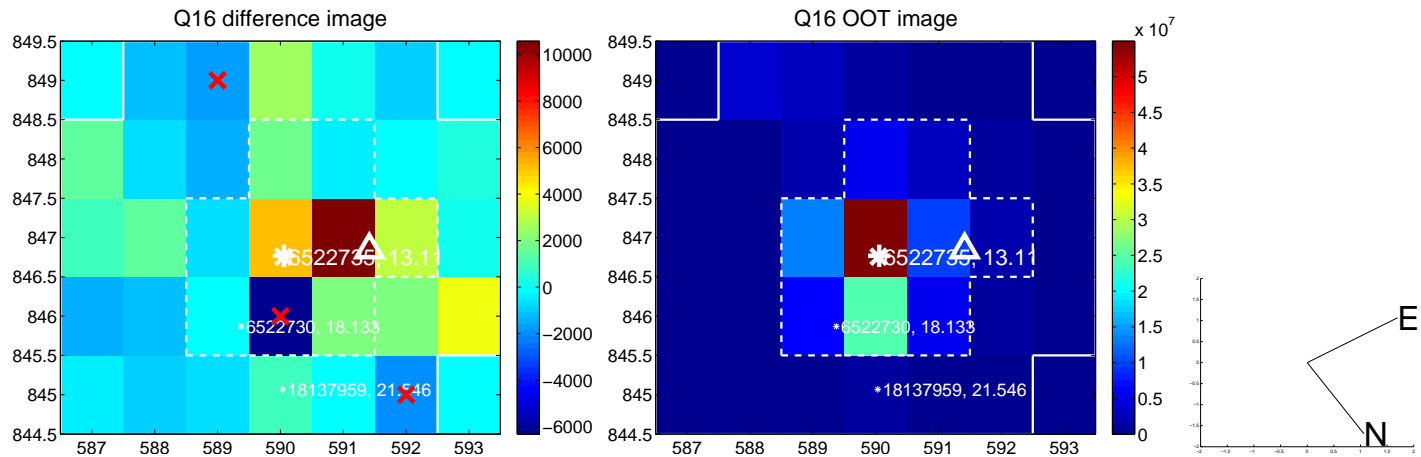
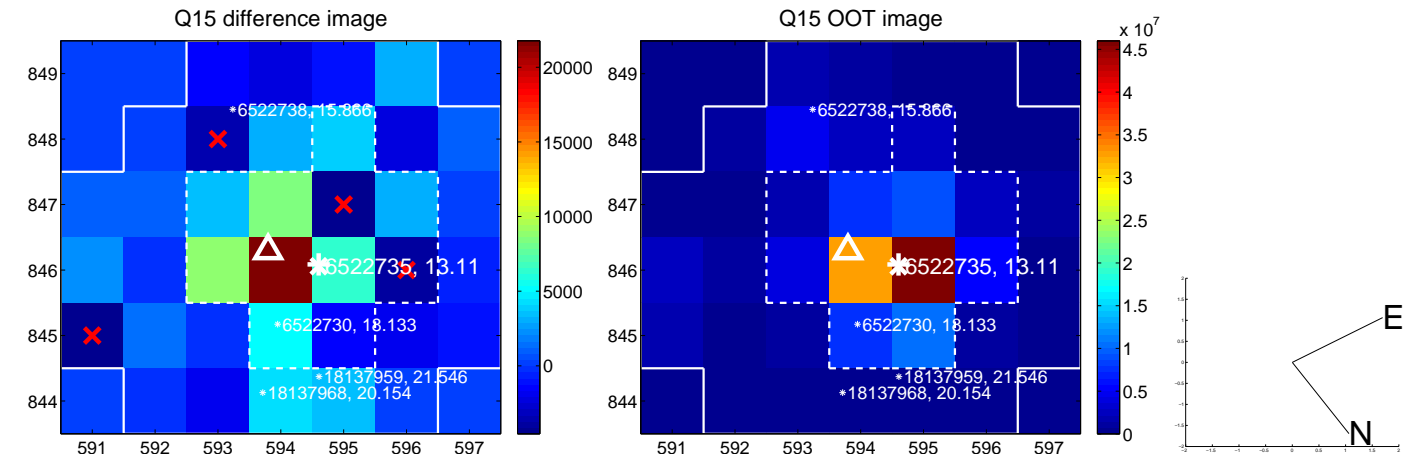
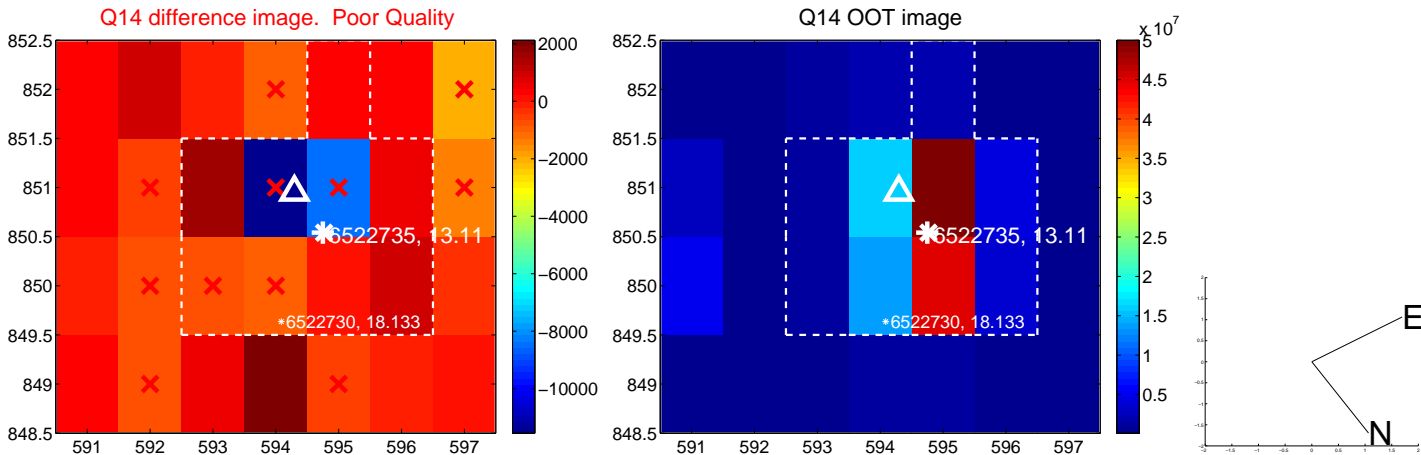
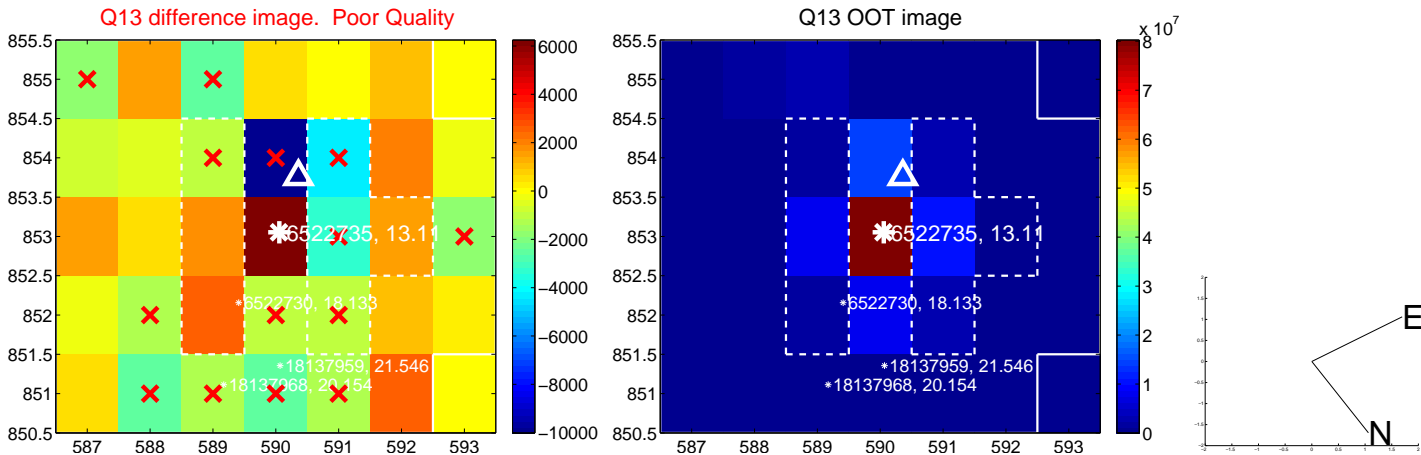
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

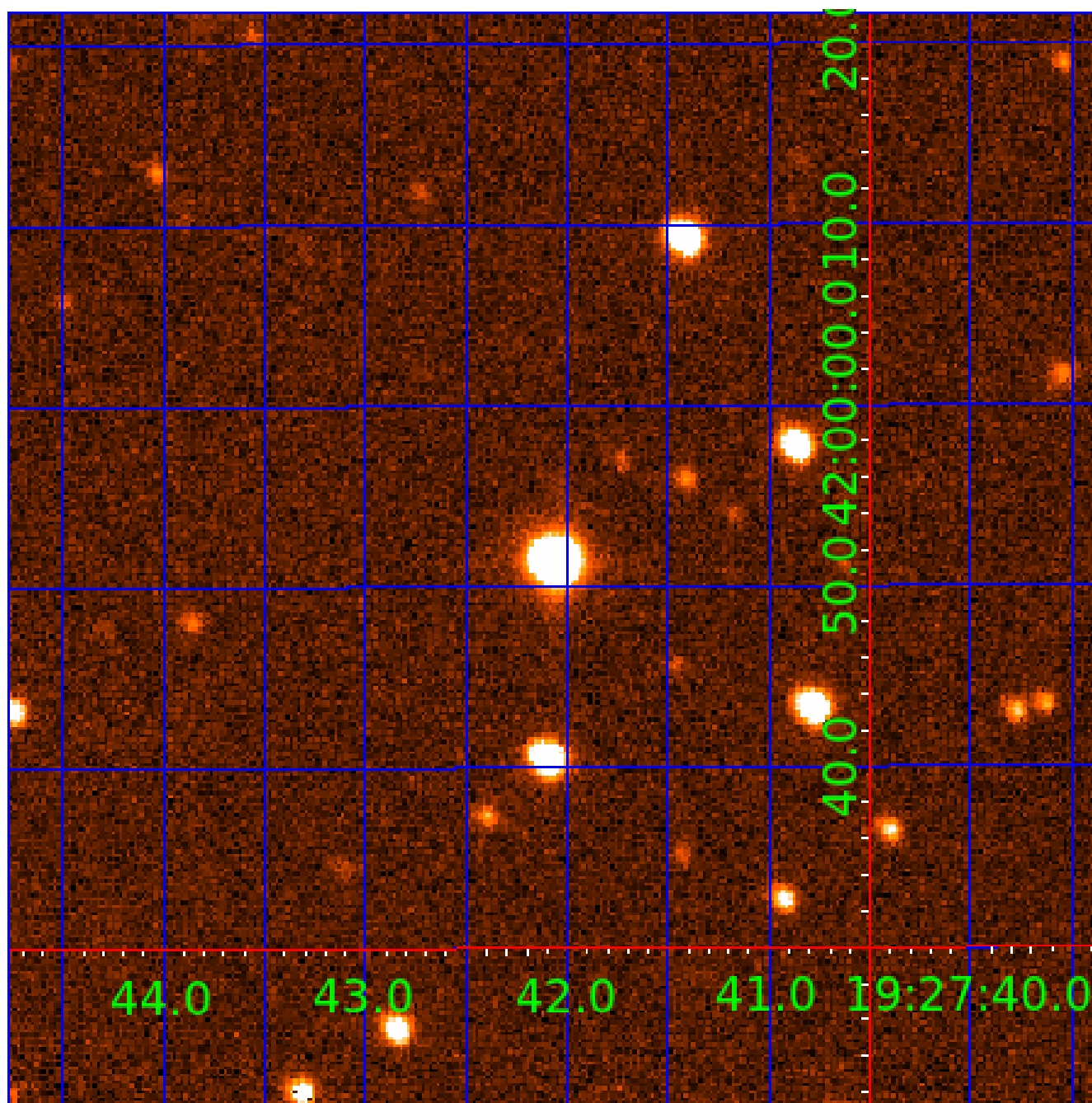


white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006522735

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
006522735-01	OBS	No	2.536471	132.265097	36.7	8.777	10.1	8.9	1.74	7170	1.25	4337.07
006522735-02	OBS	No	2.536440	133.513238	38.3	9.982	11.4	10.8	1.74	7170	1.15	4337.15
006522735-03	OBS	No	16.921931	137.872806	157.2	4.259	17.9	4.9	1.74	7170	2.53	345.33
006522735-06	OBS	No	8.727425	132.272232	88.4	1.106	10.3	2.3	1.74	7170	1.70	834.94
006522735-07	OBS	No	63.979141	160.926757	418.7	5.471	13.6	9.9	1.74	7170	4.32	58.63
006522735-08	OBS	No	12.358411	141.401367	404.9	1.165	9.2	8.8	1.74	7170	3.65	525.07
006522735-09	OBS	No	10.632161	132.169697	360.5	1.109	8.6	8.1	1.74	7170	3.37	641.71

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006522735-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
006522735-02	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—SAME_NTL_PERIOD
006522735-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
006522735-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
006522735-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
006522735-08	OBS	FP	0.00	1	0	1	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—HALO_GHOST
006522735-09	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

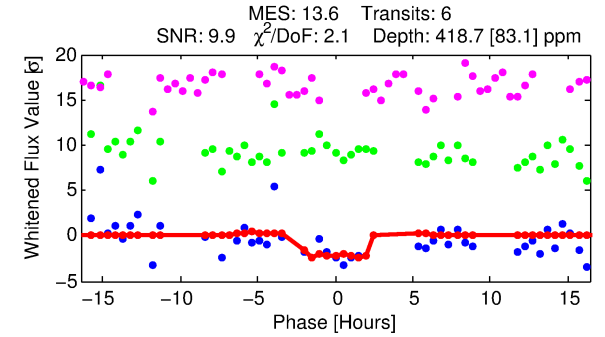
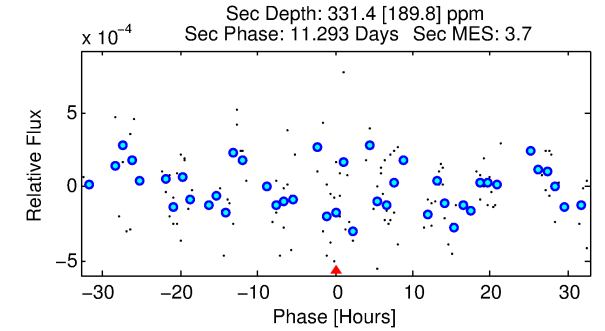
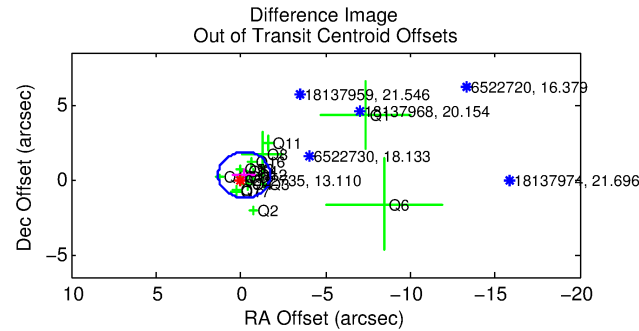
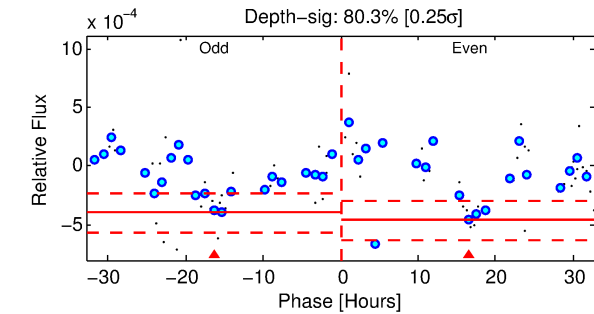
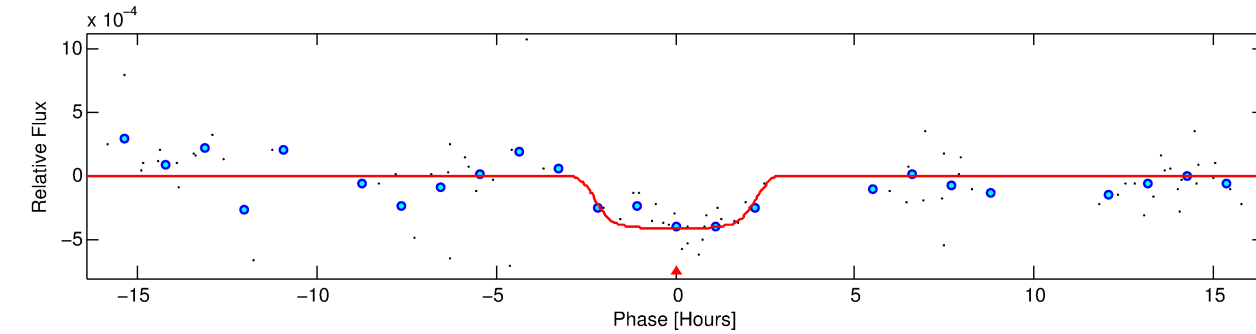
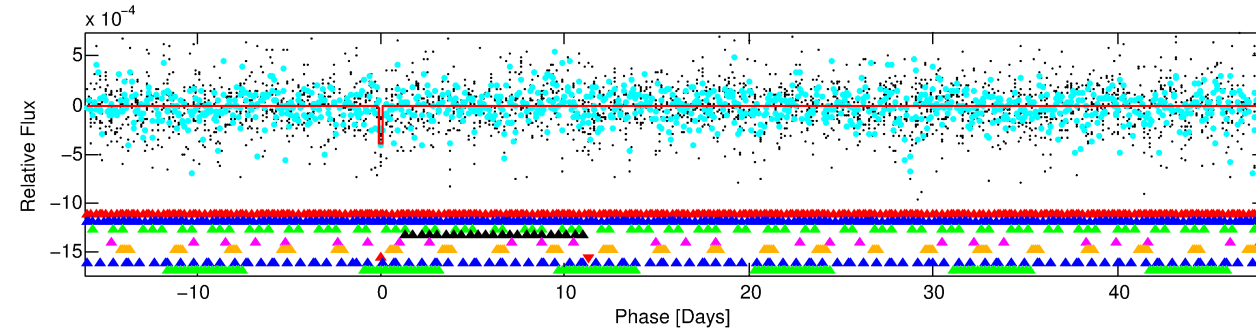
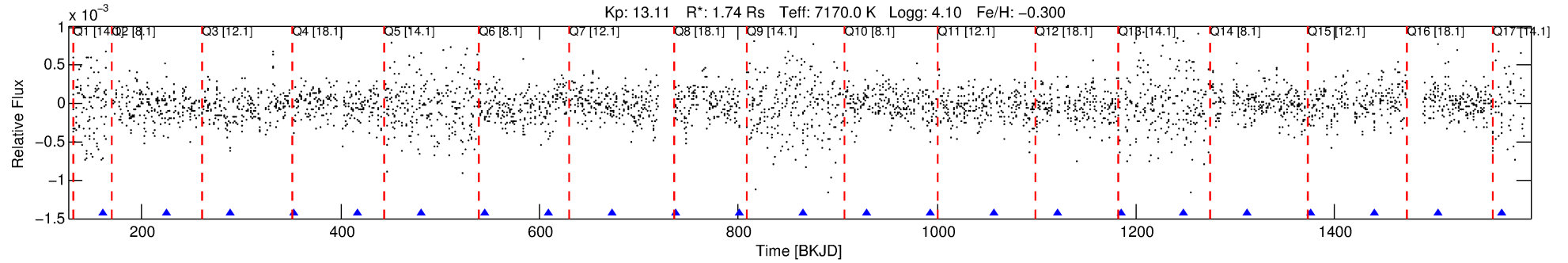
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006522735-07

No Significant Match Found

DV One-Page Summary

KIC: 6522735 Candidate: 7 of 9 Period: 63.979 d



DV Fit Results:

Period = 63.97914 [0.00441] d
Epoch = 160.9268 [0.0584] BKJD
Rp/R* = 0.0227 [0.0039]
a/R* = 35.07 [33.53]
b = 0.94 [0.08]
Seff = 58.63 [21.91]
Teff = 706 [66] K
Rp = 4.32 [1.49] Re
a = 0.3499 [0.0850] AU
Ag = 1198.16 [897.70] [1.33 σ]
Teffp = 6418 [1098] K [5.19 σ]

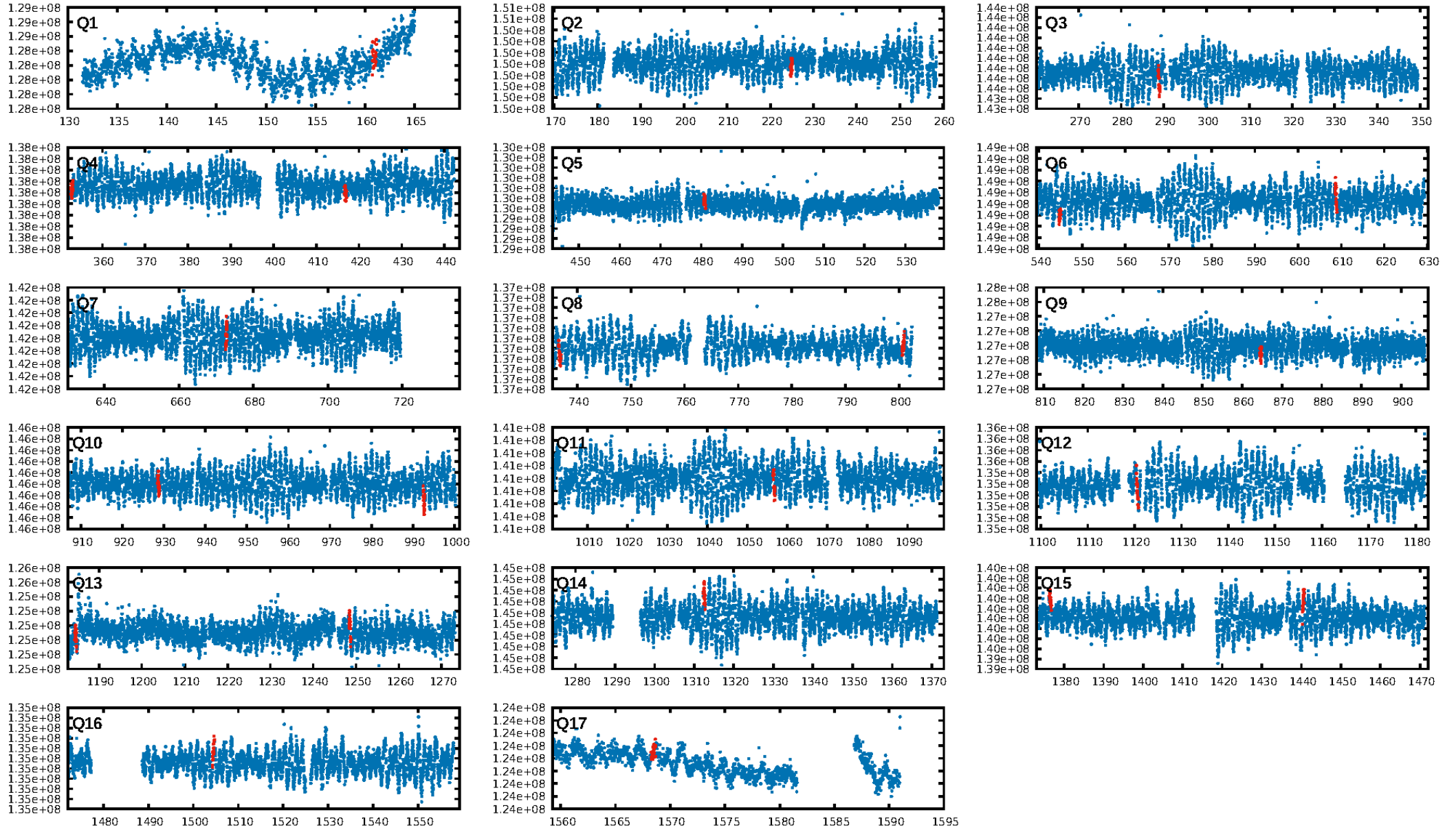
DV Diagnostic Results:

ShortPeriod-sig: 77.7% [1.22 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 18.6%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.39e-56
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: -0.4952
Centroid-sig: 81.6%
Centroid-so: 0.326 arcsec [1.06 σ]
OotOffset-rm: 0.369 arcsec [0.72 σ]
KicOffset-rm: 0.304 arcsec [0.55 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.35 [6/17]
DiffImageOverlap-fno: 0.00 [0/17]

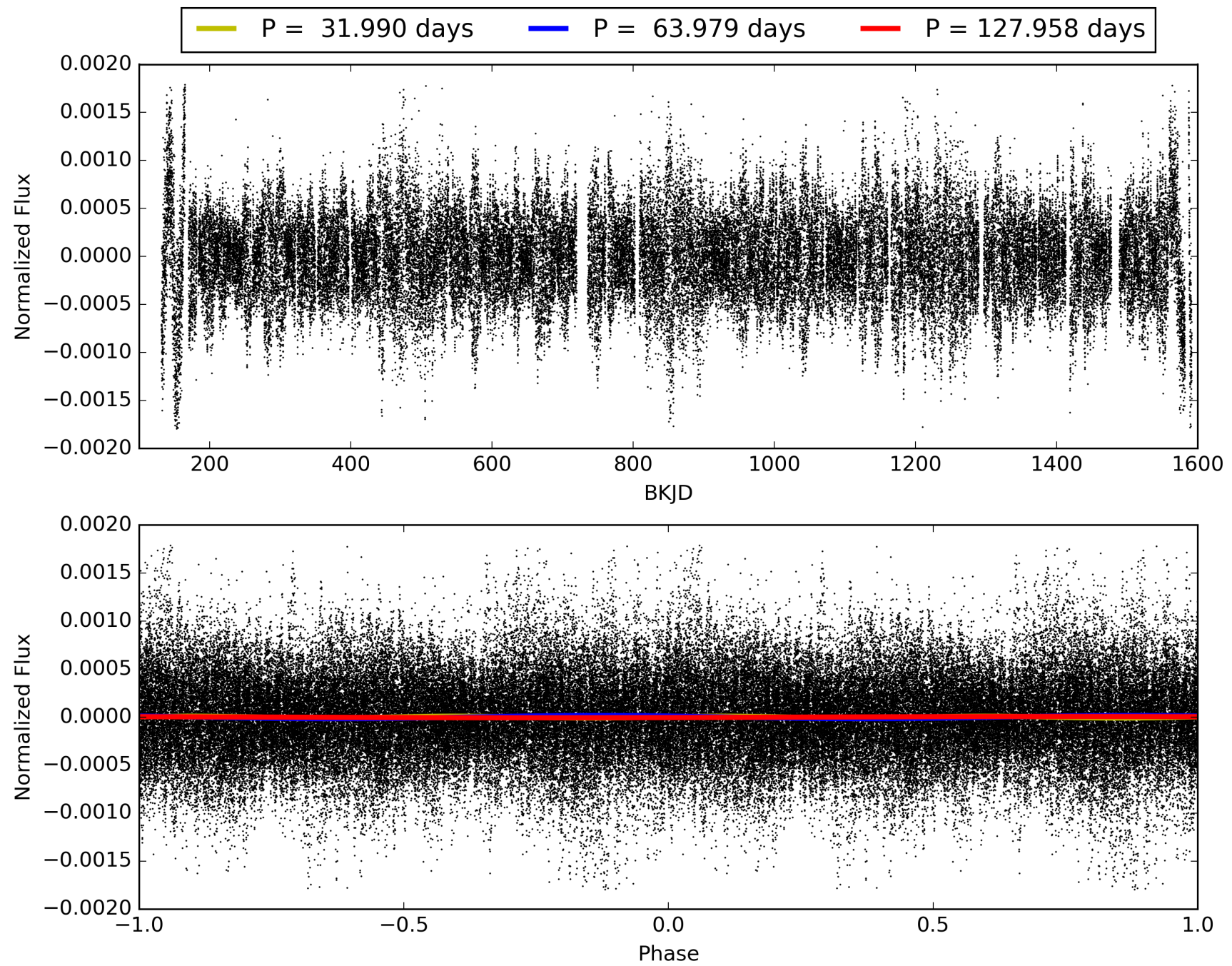
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 08:44:30 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006522735-07, PDC Light Curves

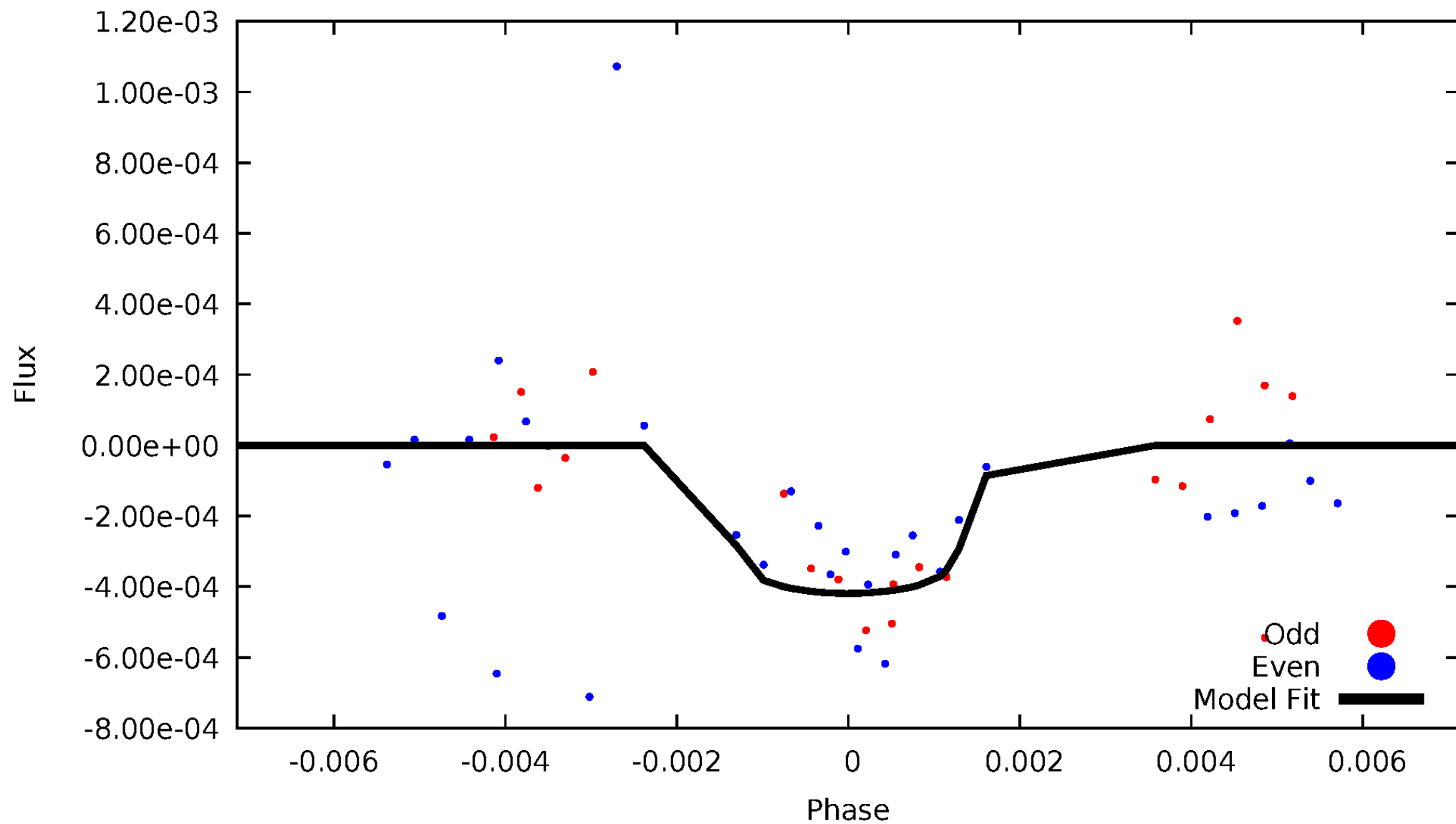


TCE 006522735-07



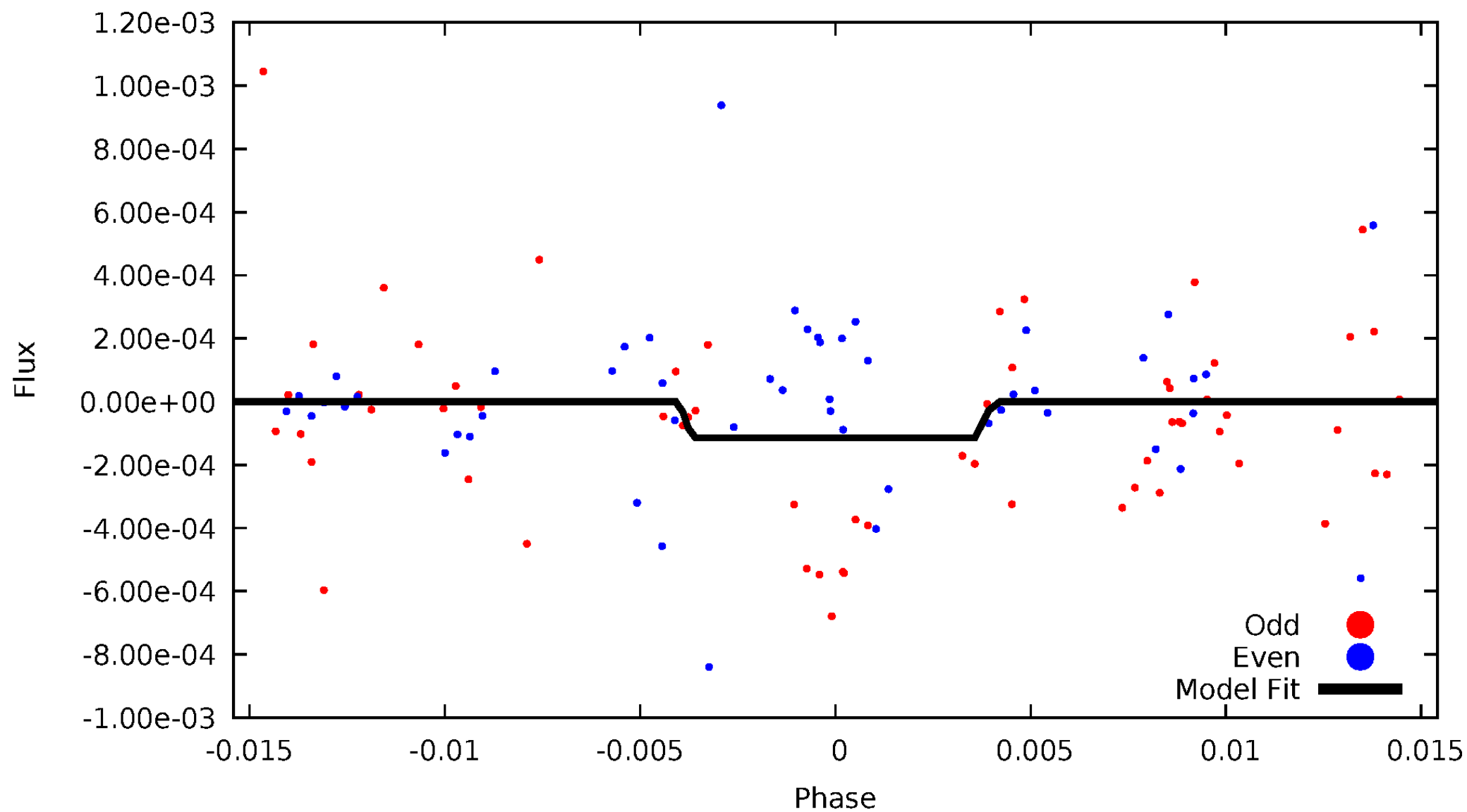
DV Odd/Even

TCE 006522735-07



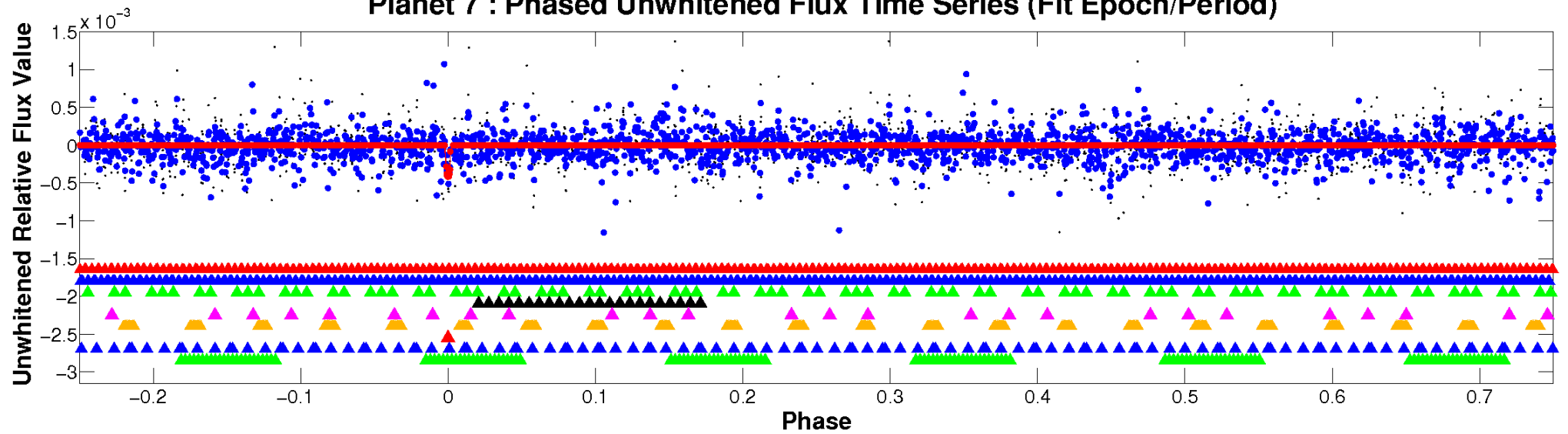
ALT Odd/Even

TCE 006522735-07

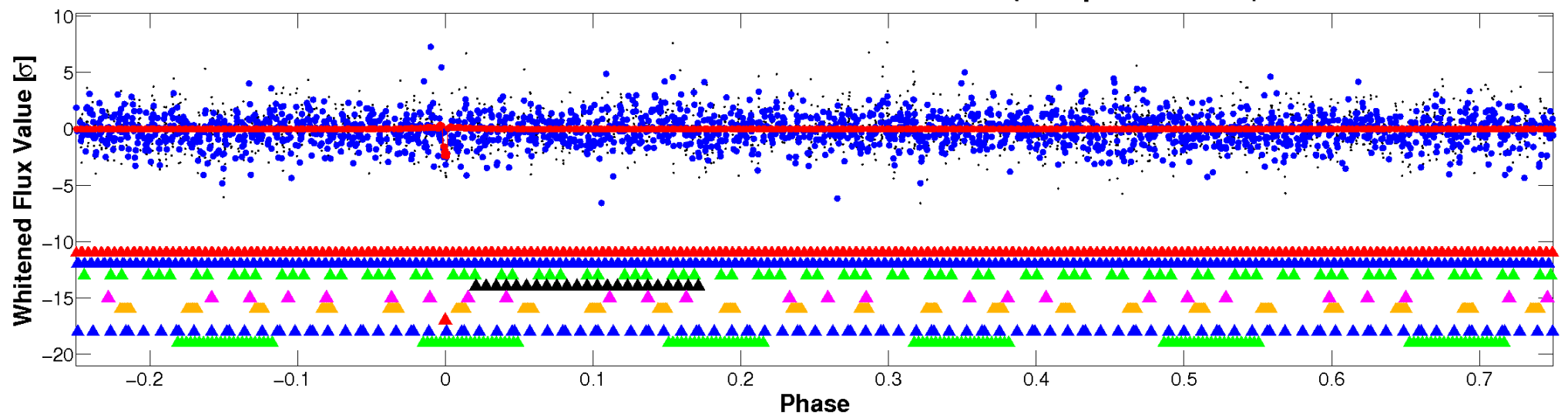


Non-Whitened Vs. Whitened Light Curve

Planet 7 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

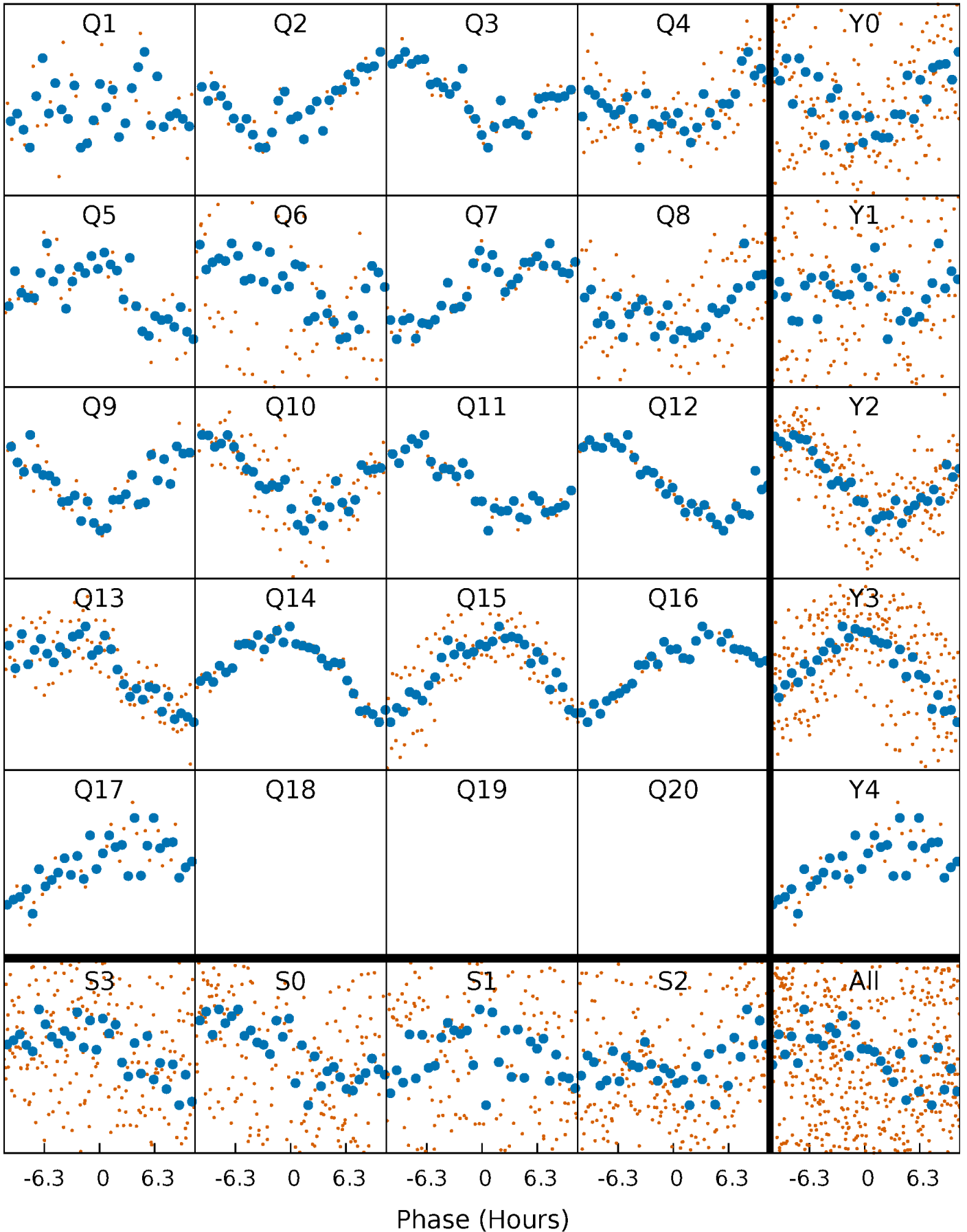


Planet 7 : Phased Whitened Flux Time Series (Fit Epoch/Period)



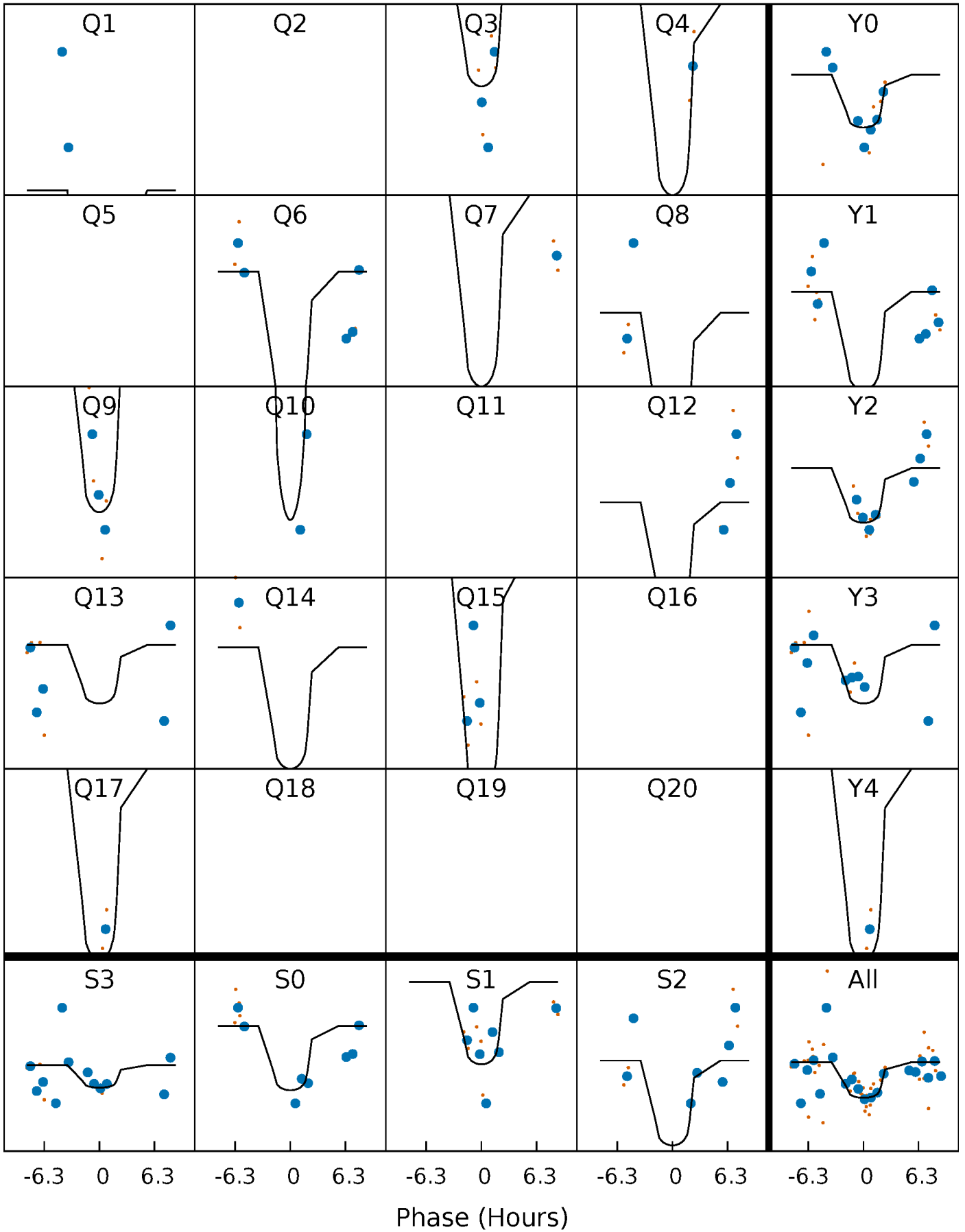
PDC Quarter-Phased Transit Curves

TCE 006522735-07 $P = 63.979141$ Days $T_0 = 160.926757$ (BKJD)



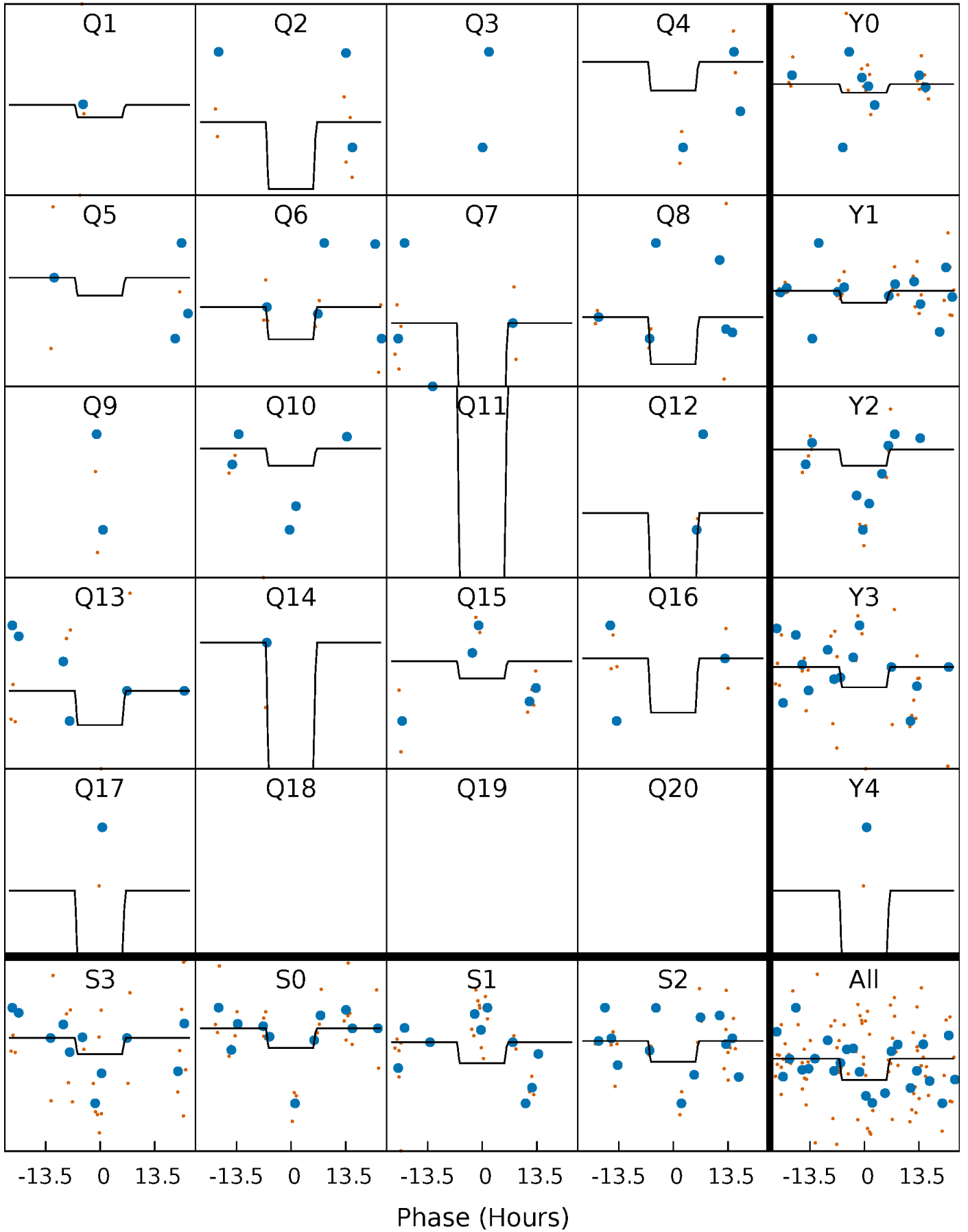
DV Quarter-Phased Transit Curves

TCE 006522735-07 $P = 63.979141$ Days $T_0 = 160.926757$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

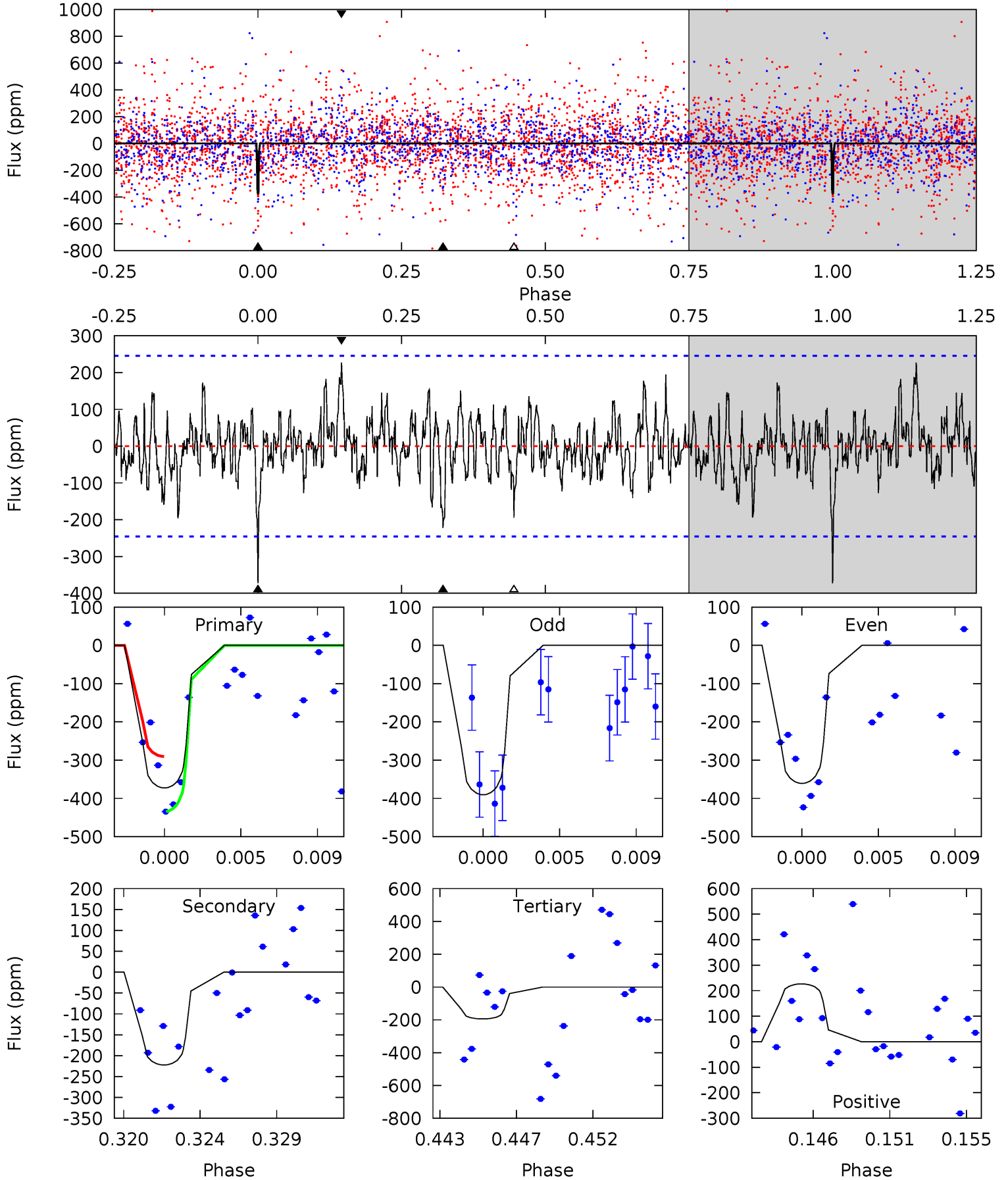
TCE 006522735-07 P= 63.979596 Days $T_0=160.940970$ (BKJD)



DV Model-Shift Uniqueness Test

006522735-07, P = 63.979141 Days, E = 96.947616 Days

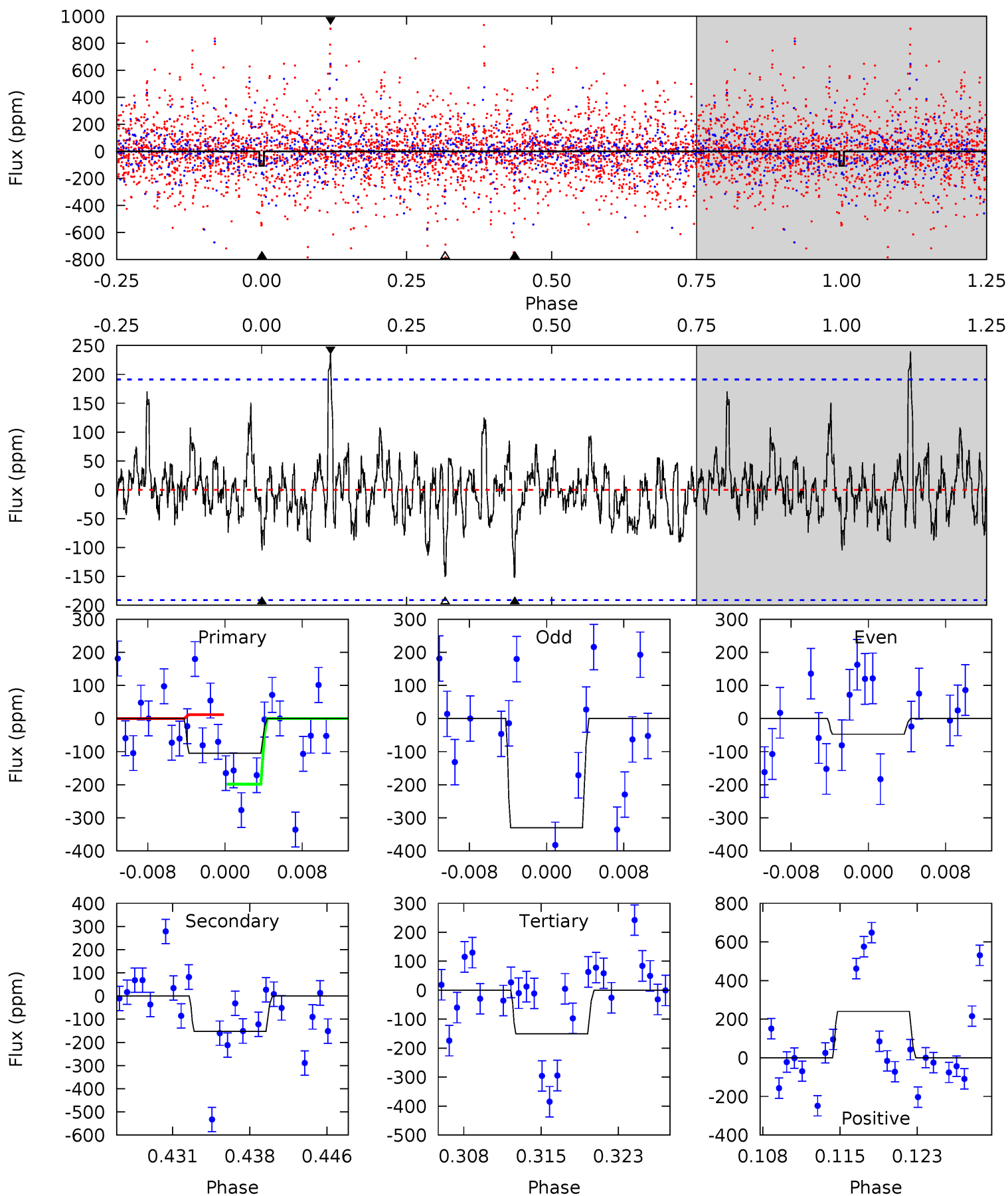
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.85	4.68	4.09	4.78	5.17	2.84	1.33	3.76	3.07	0.59	-0.09	0.30	1.01	0.38	1.46



Alt Model-Shift Uniqueness Test

006522735-07, P = 63.979596 Days, E = 96.961374 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.79	4.05	4.00	6.38	5.08	2.67	1.21	-1.21	-3.59	0.04	-2.34	3.90	-19.4	0.61	0



Stellar Parameters For KIC 006522735

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7170^{+199}_{-274}	$4.101^{+0.180}_{-0.180}$	$-0.300^{+0.250}_{-0.350}$	$1.741^{+0.522}_{-0.475}$	$1.397^{+0.205}_{-0.228}$	$0.373^{+0.384}_{-0.177}$
	+3%/-4%	+4%/-4%	+83%/-117%	+30%/-27%	+15%/-16%	+103%/-47%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 006522735-07 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-222 ± 47	$4.27^{+1.15}_{-0.86}$	987^{+76}_{-71}	5736^{+698}_{-506}	795^{+540}_{-311}
Alt.	-152 ± 38	$2.05^{+0.81}_{-0.73}$	985^{+82}_{-73}	7674^{+2537}_{-1296}	2355^{+3668}_{-1217}

T_{max} = Theoretical Maximum Planetary Temperature
 T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)
 A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

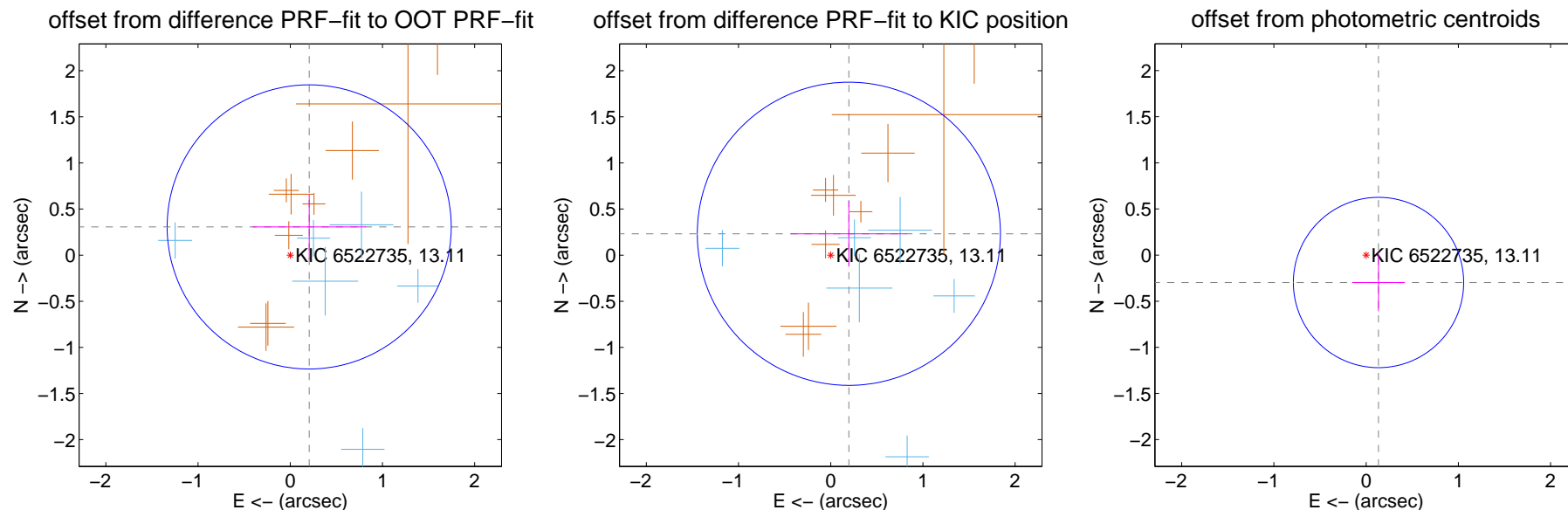
DV Centroid Data

Supplemental centroid analysis for 006522735-07. Kepler magnitude: 13.11. Transit SNR 9.94

There are 6 quarters with good PRF difference image offsets

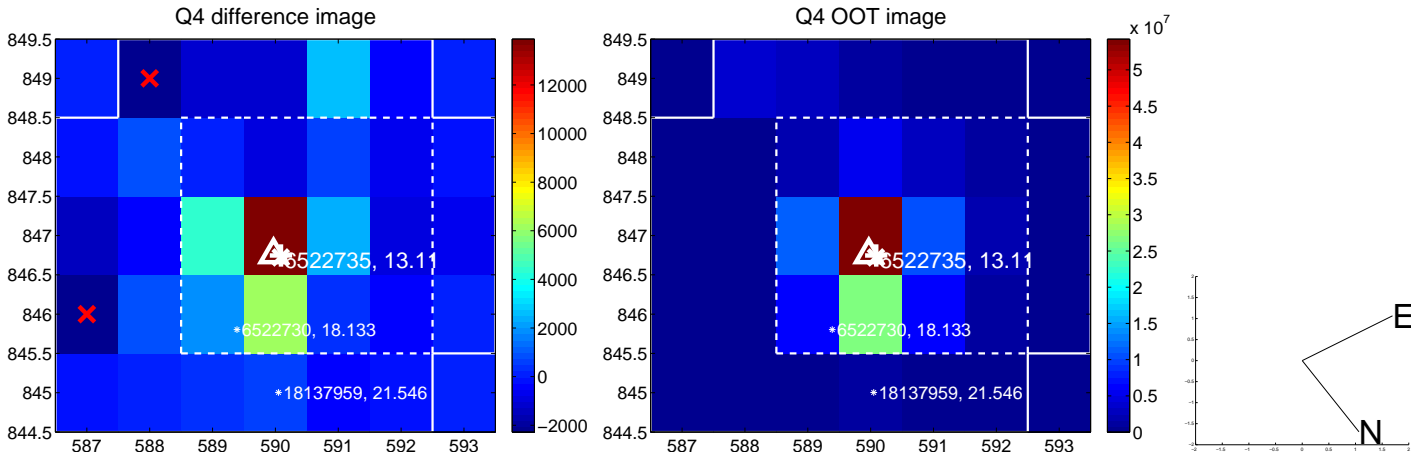
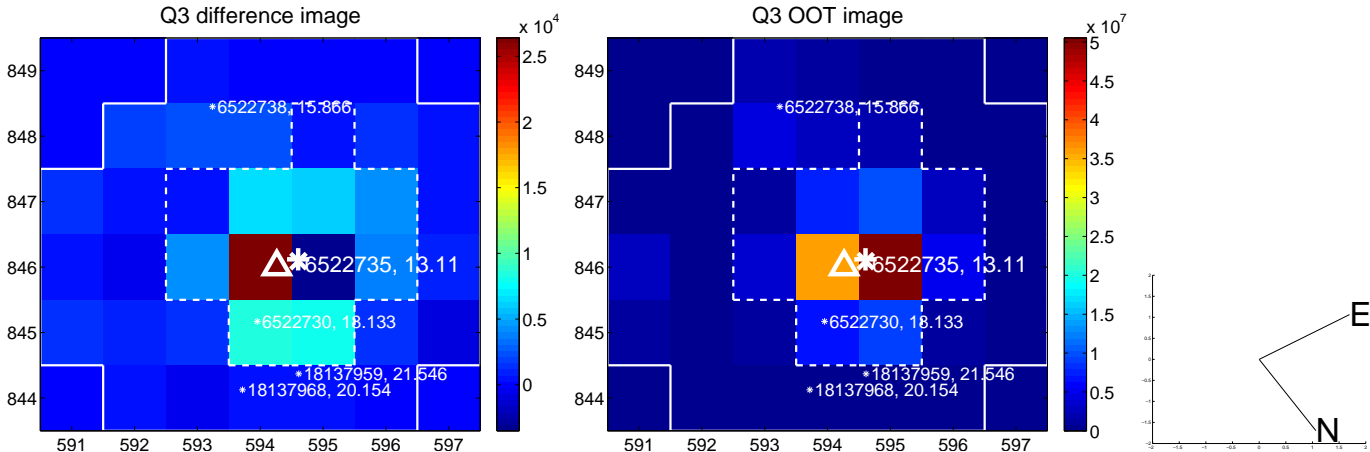
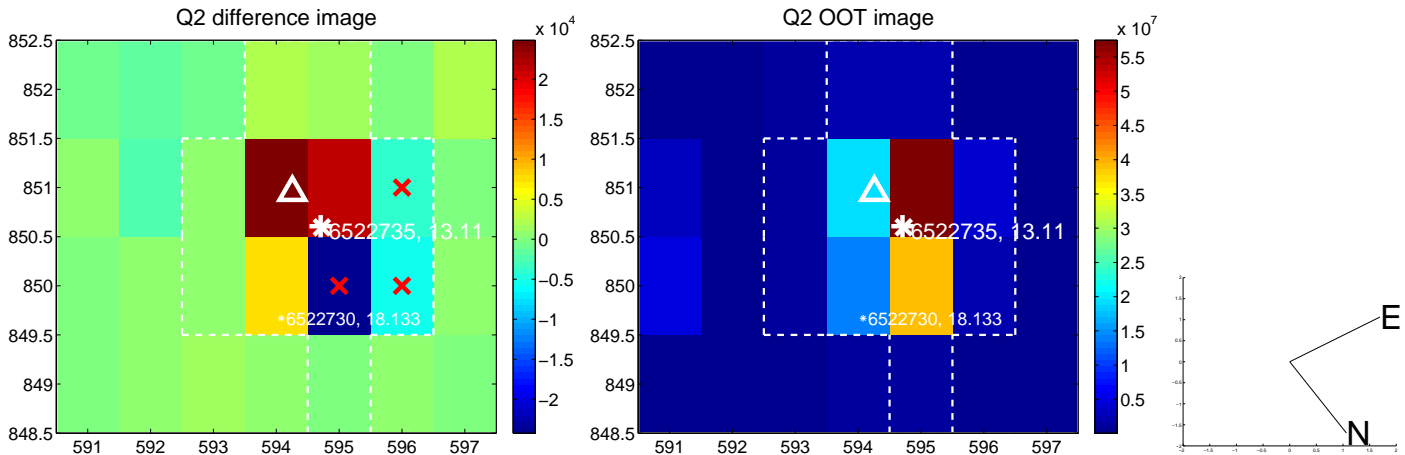
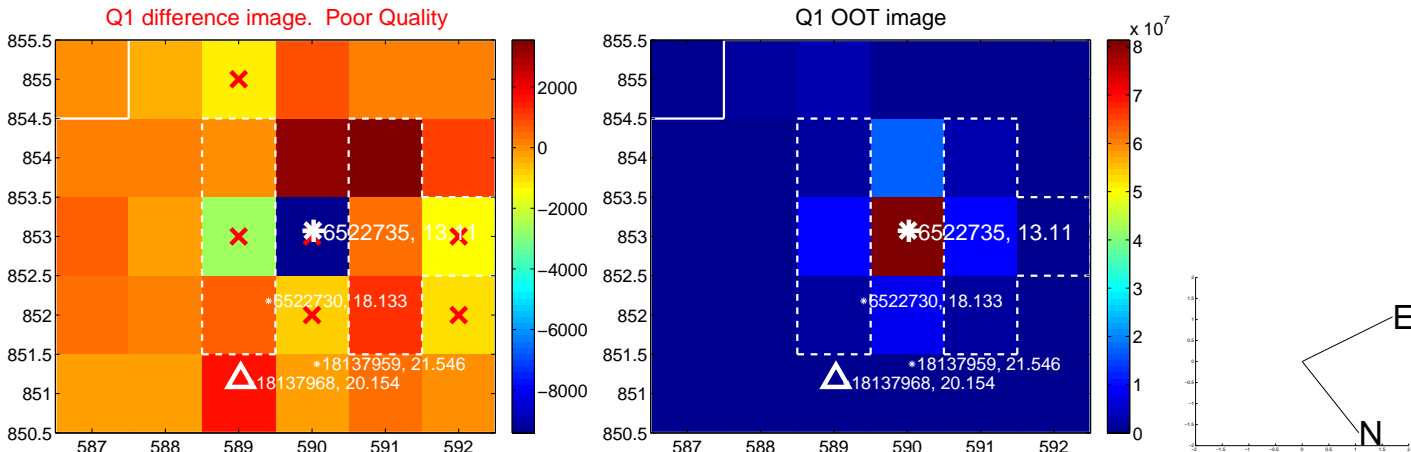
The direct PRF centroid is offset from the target star catalog position by about 0.02 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.369 ± 0.513	0.72	-0.205 ± 0.614	0.306 ± 0.353
PRF-fit source offset from KIC position	0.304 ± 0.548	0.55	-0.197 ± 0.628	0.232 ± 0.358
photometric centroid source offset	0.33 ± 0.31	1.06	-0.13 ± 0.29	-0.30 ± 0.31

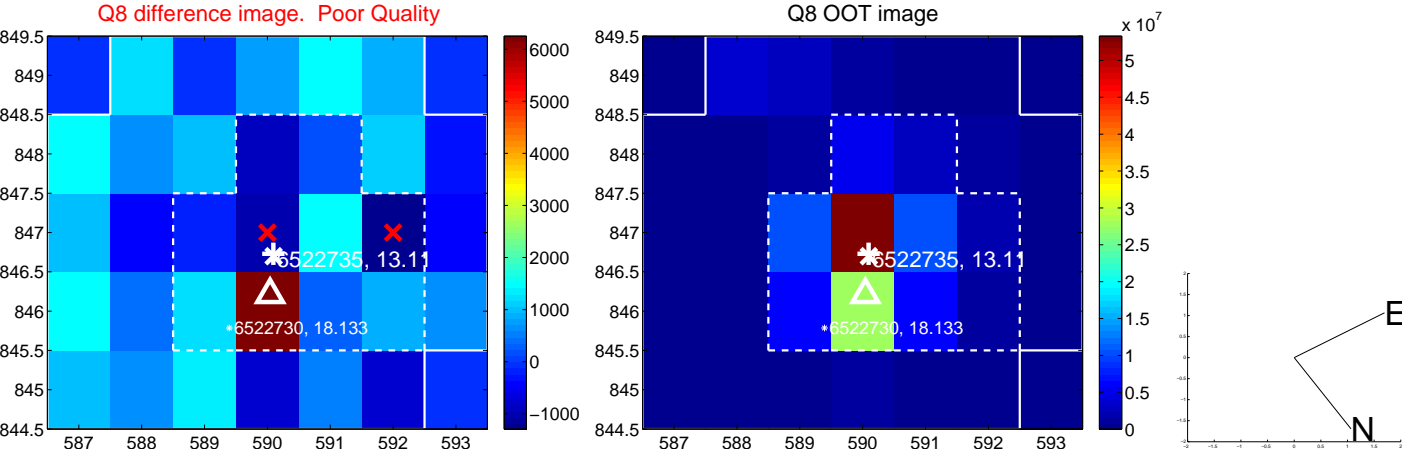
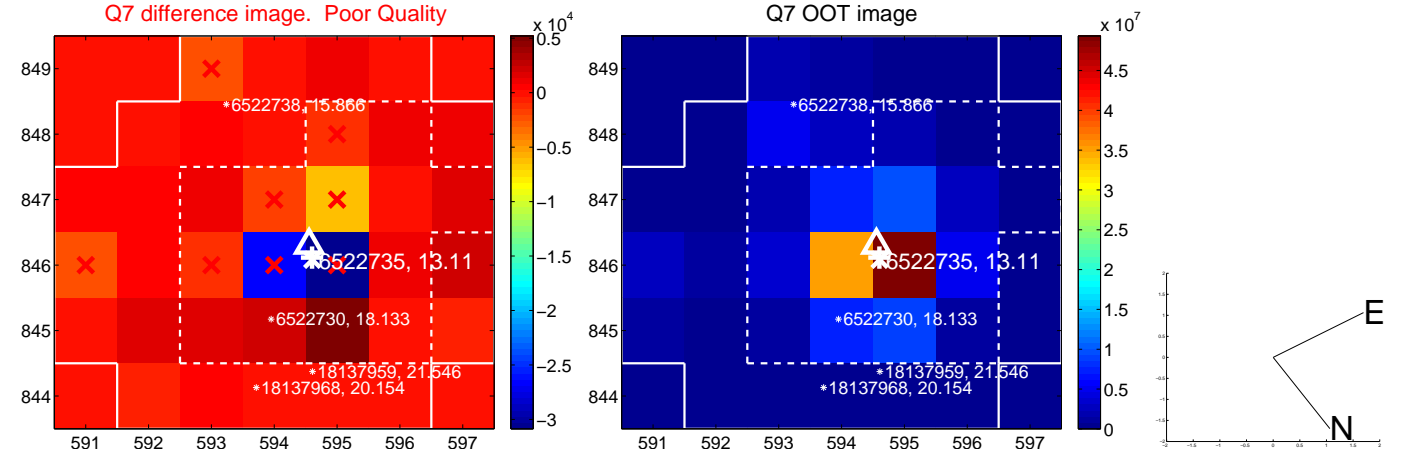
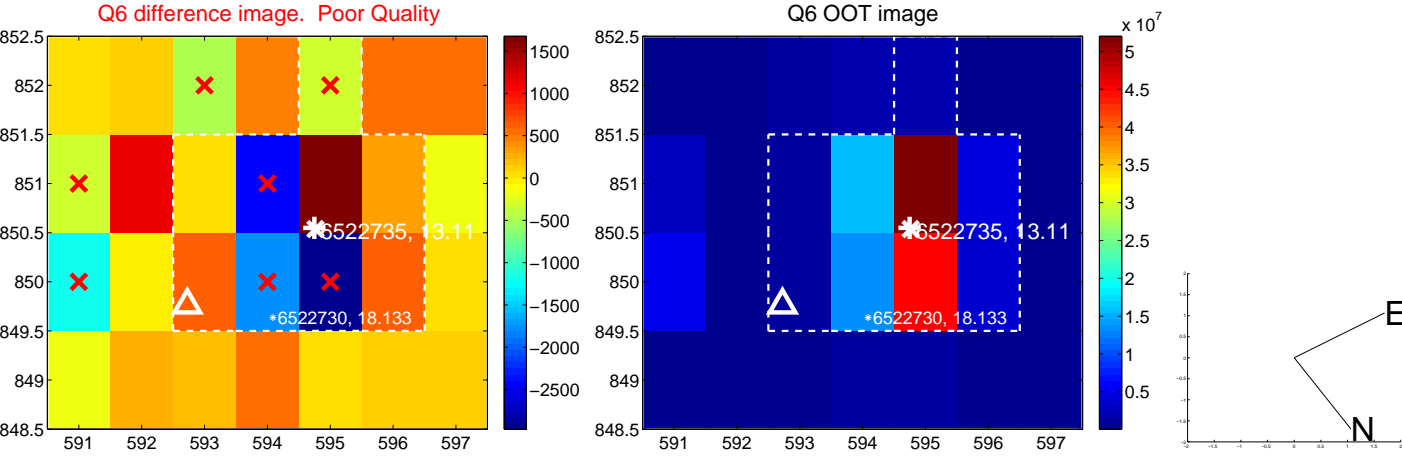
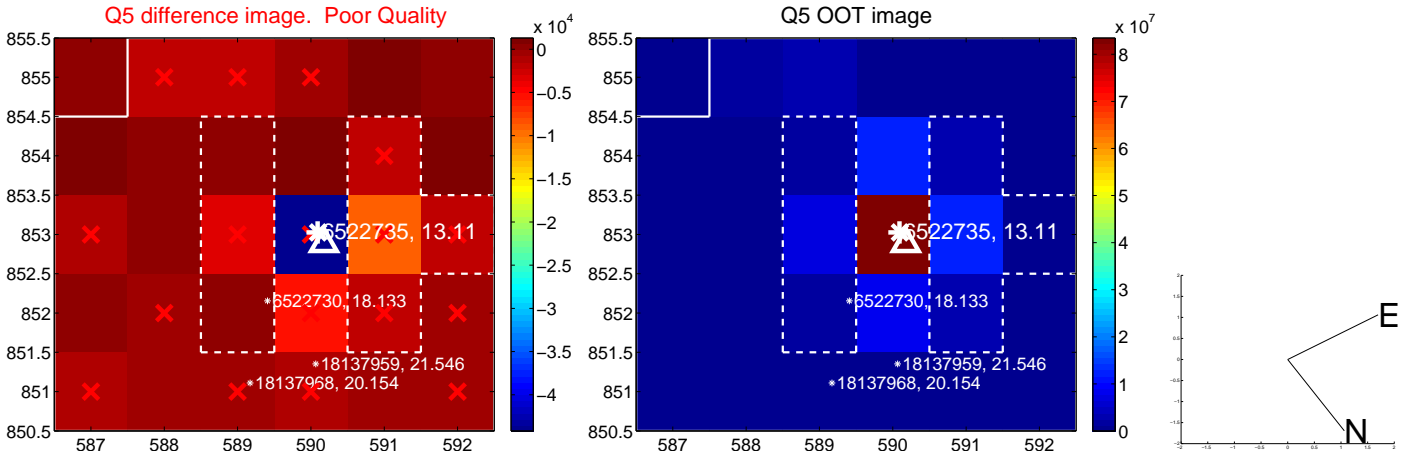


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

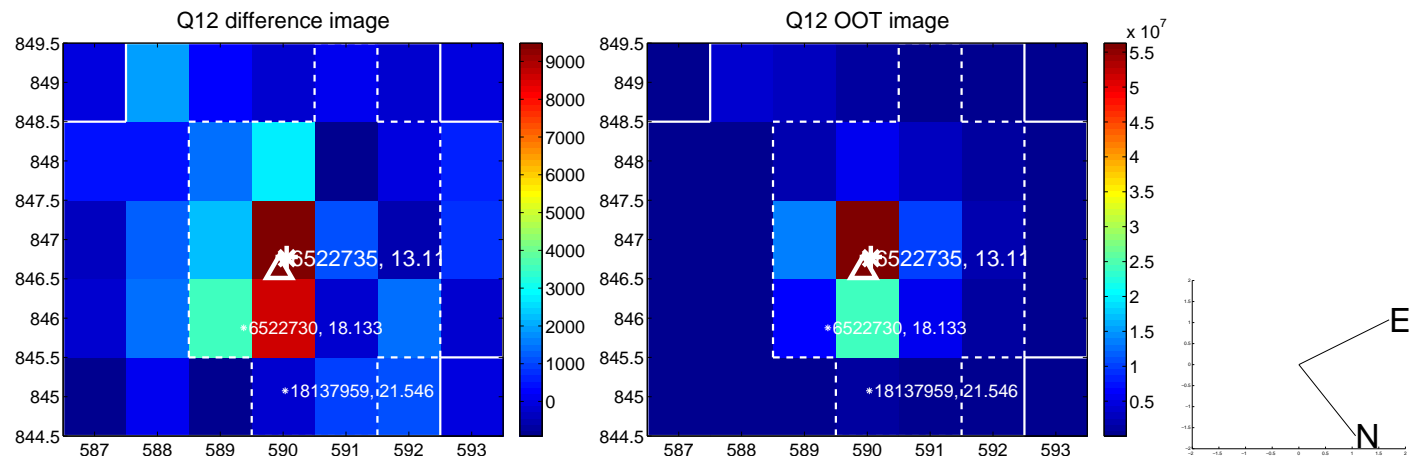
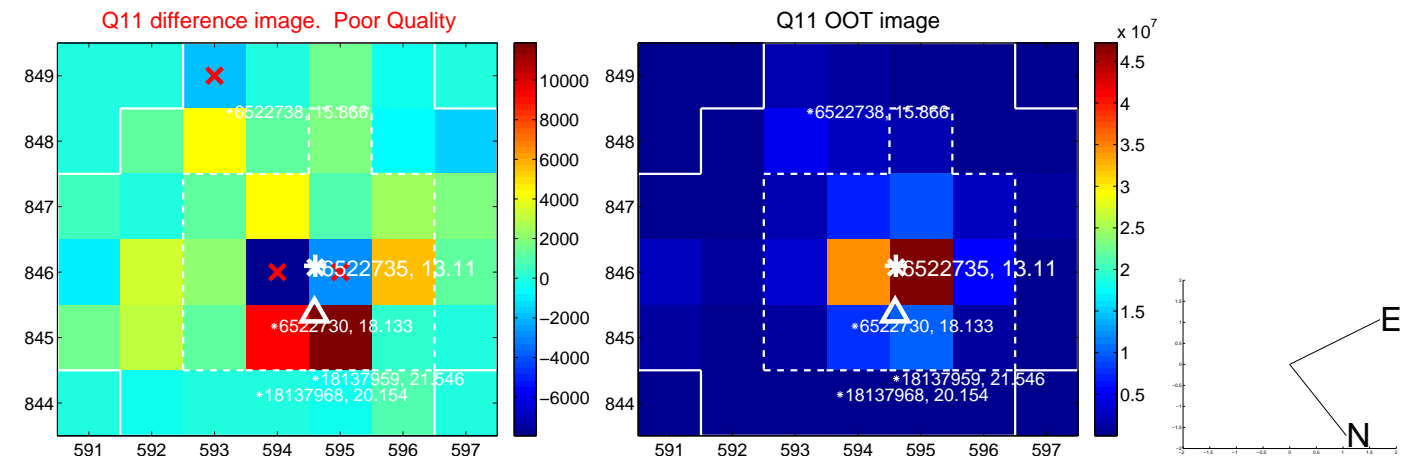
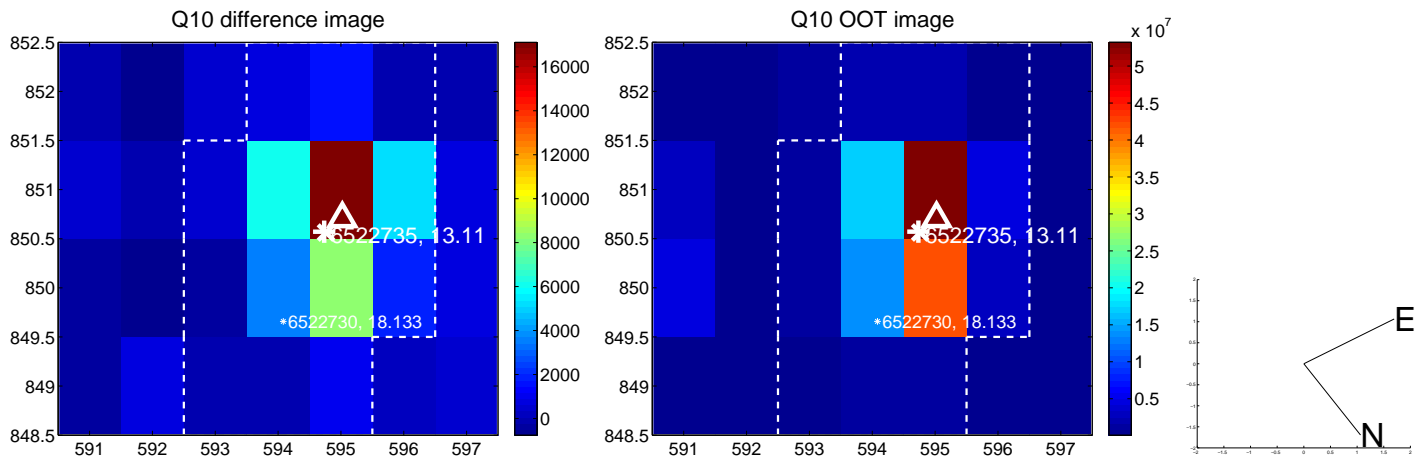
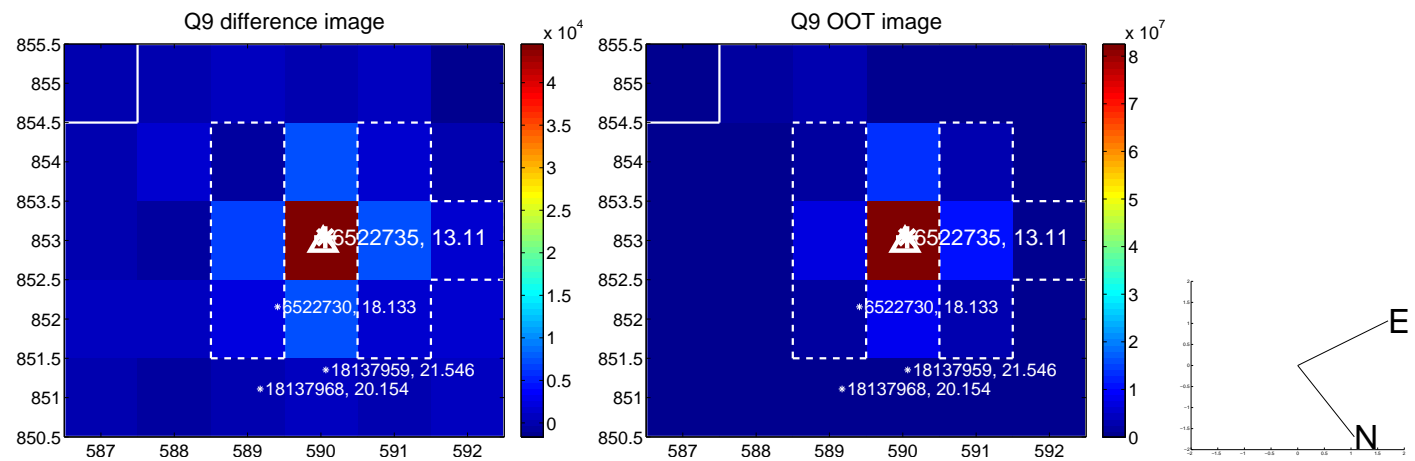
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



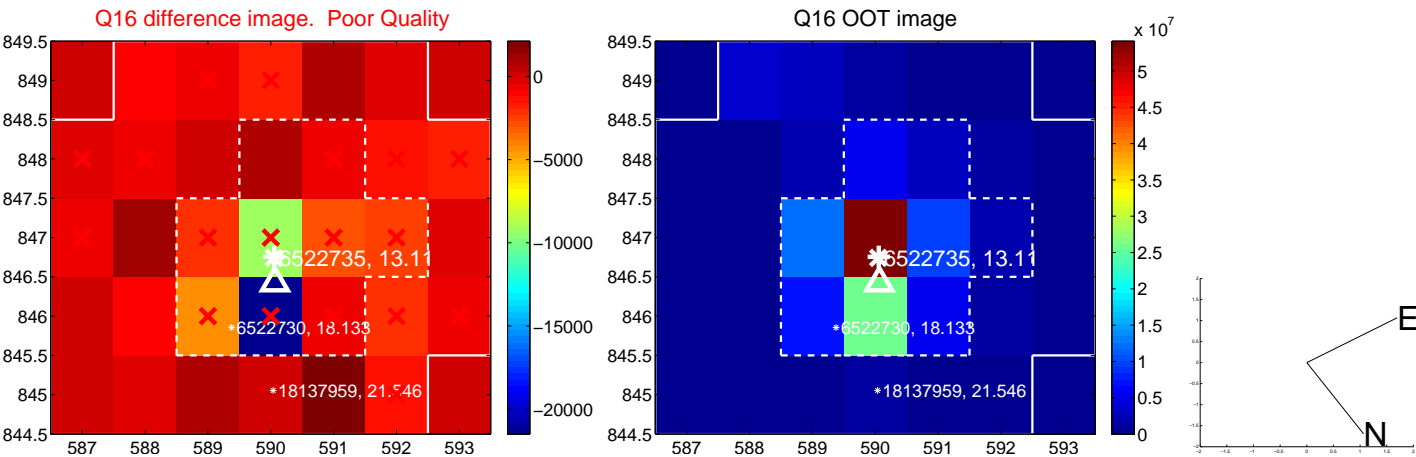
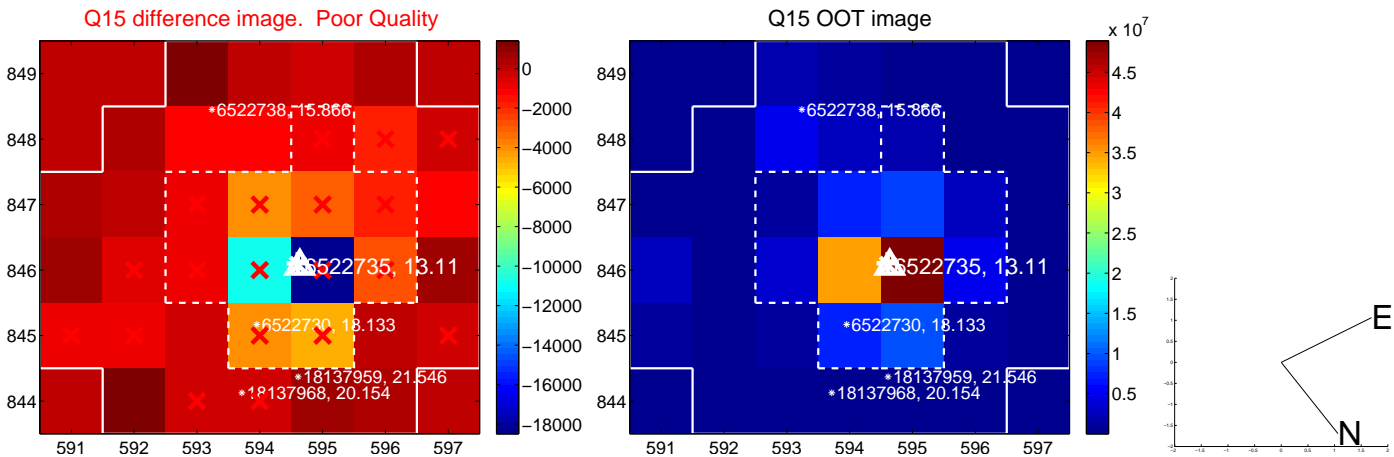
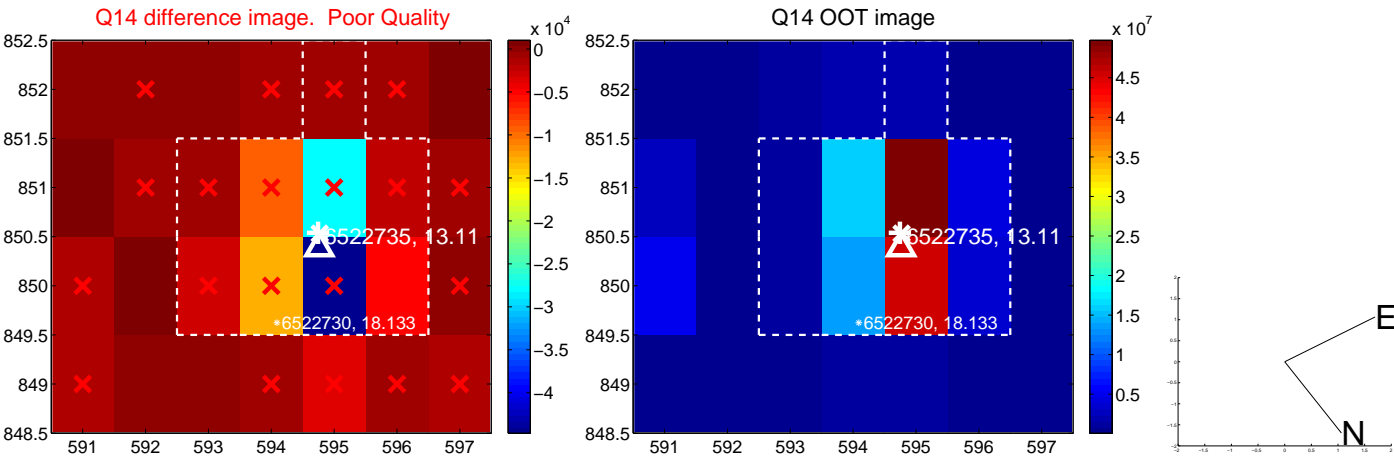
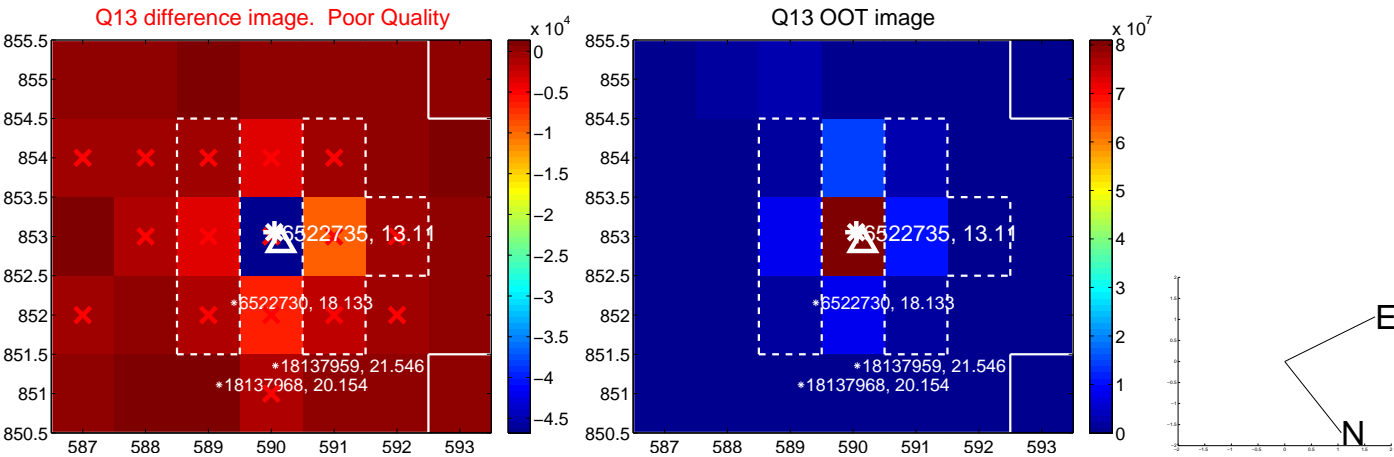
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



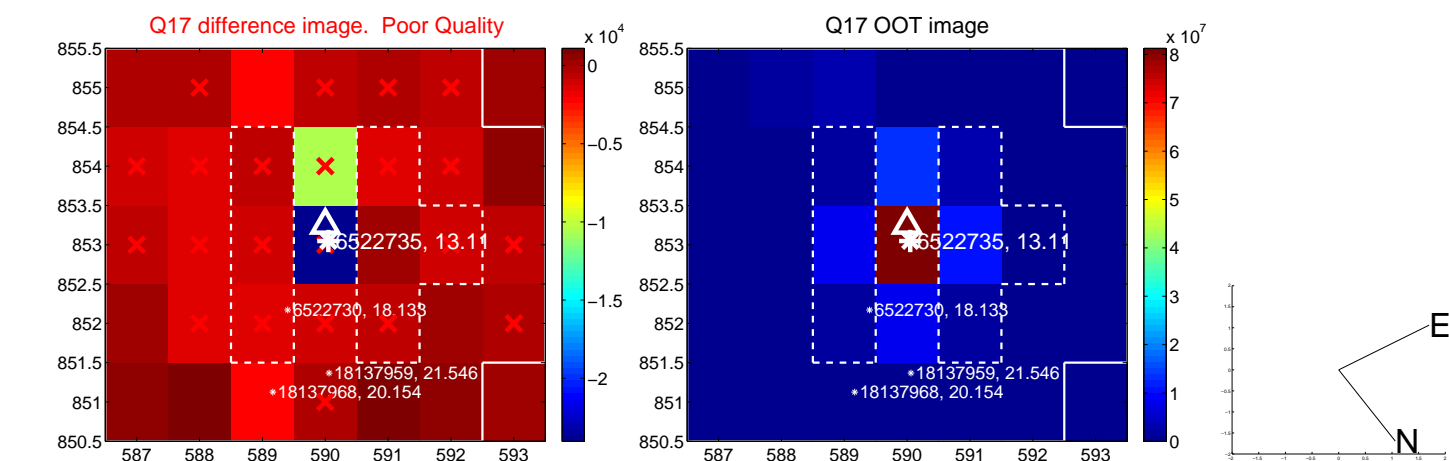
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



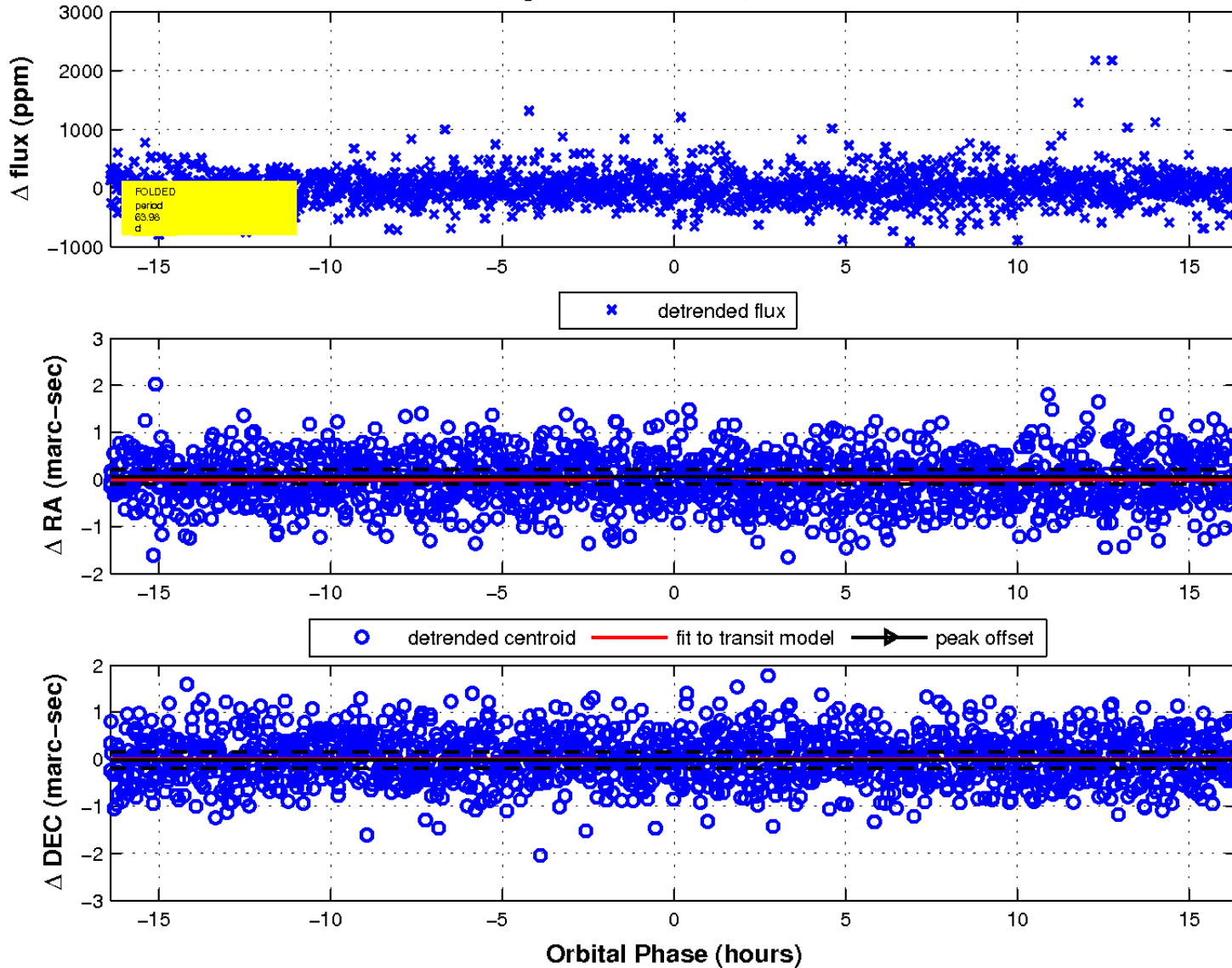
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

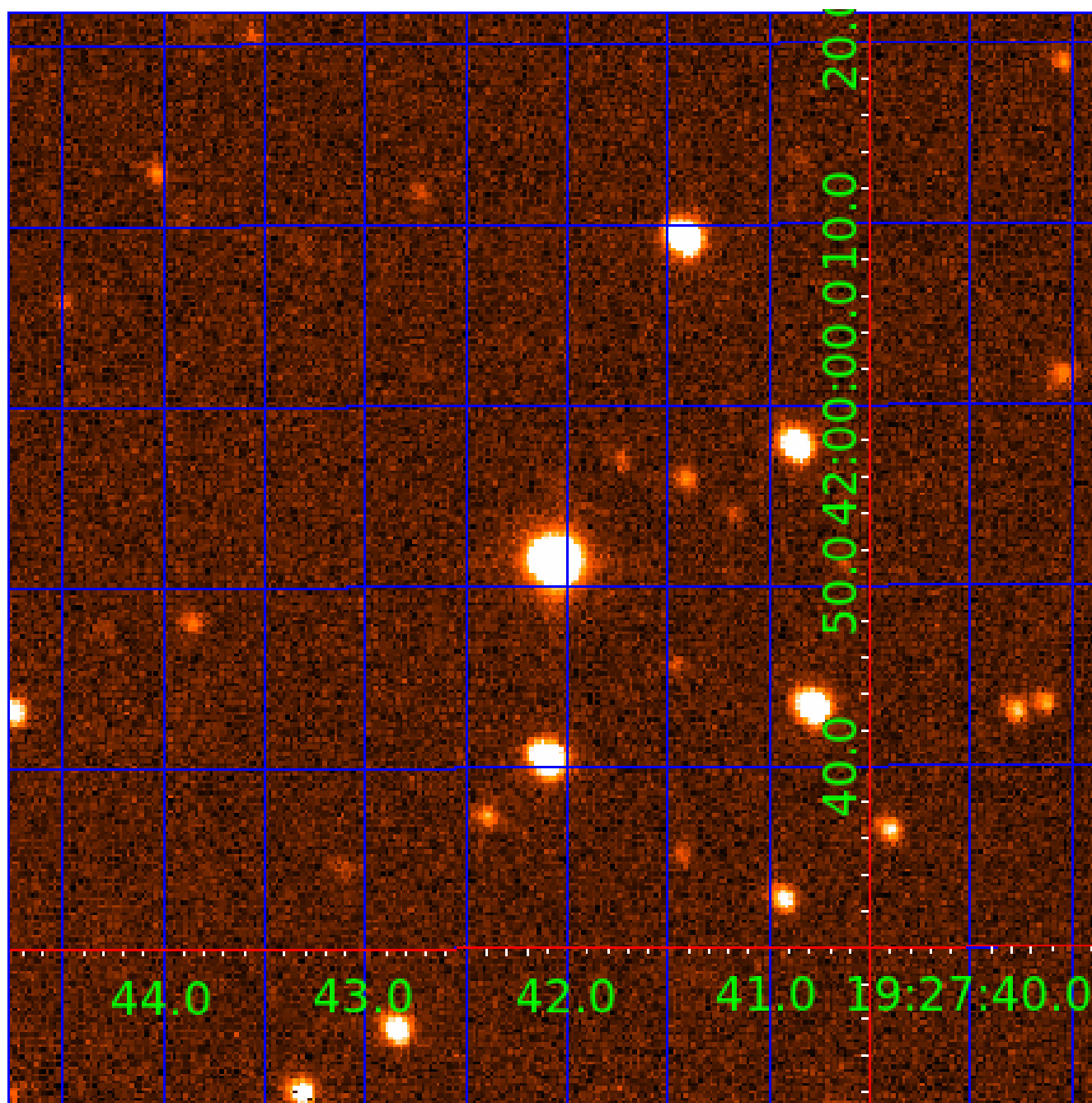


fluxWeightedCentroids, Planet 7 of 9



UKIRT Image

Declination



KIC 006522735

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
006522735-01	OBS	No	2.536471	132.265097	36.7	8.777	10.1	8.9	1.74	7170	1.25	4337.07
006522735-02	OBS	No	2.536440	133.513238	38.3	9.982	11.4	10.8	1.74	7170	1.15	4337.15
006522735-03	OBS	No	16.921931	137.872806	157.2	4.259	17.9	4.9	1.74	7170	2.53	345.33
006522735-06	OBS	No	8.727425	132.272232	88.4	1.106	10.3	2.3	1.74	7170	1.70	834.94
006522735-07	OBS	No	63.979141	160.926757	418.7	5.471	13.6	9.9	1.74	7170	4.32	58.63
006522735-08	OBS	No	12.358411	141.401367	404.9	1.165	9.2	8.8	1.74	7170	3.65	525.07
006522735-09	OBS	No	10.632161	132.169697	360.5	1.109	8.6	8.1	1.74	7170	3.37	641.71

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006522735-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
006522735-02	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—SAME_NTL_PERIOD
006522735-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
006522735-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
006522735-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
006522735-08	OBS	FP	0.00	1	0	1	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—HALO_GHOST
006522735-09	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

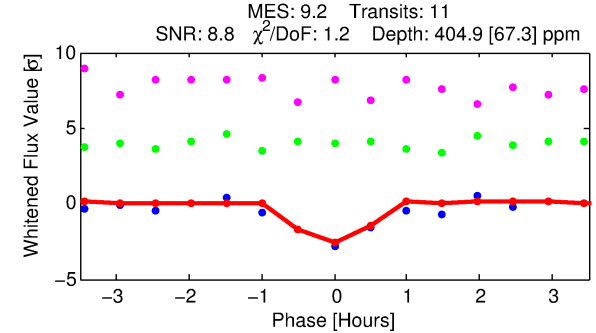
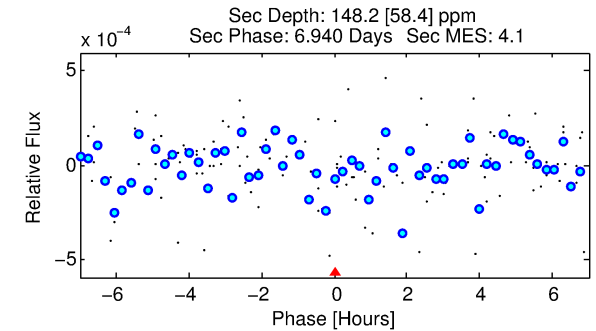
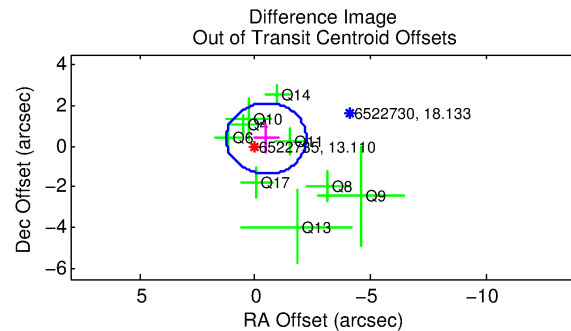
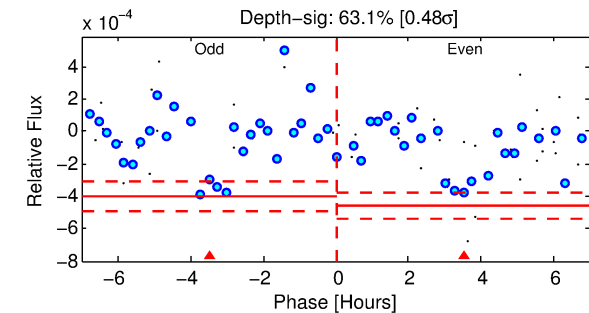
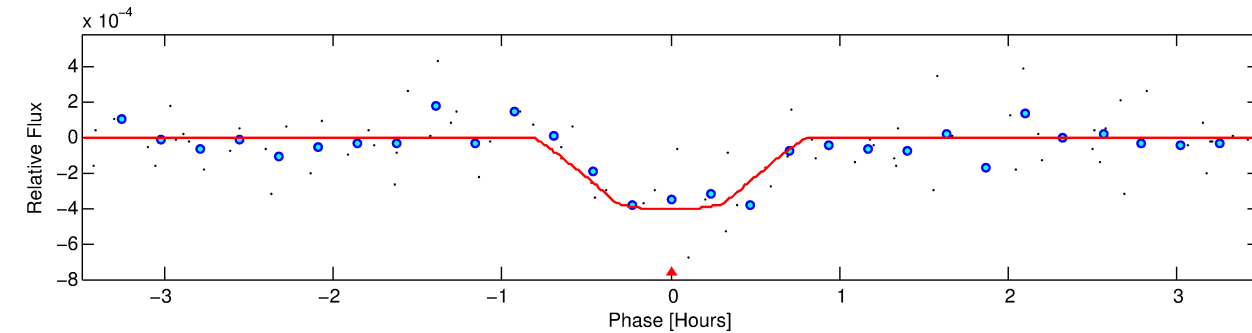
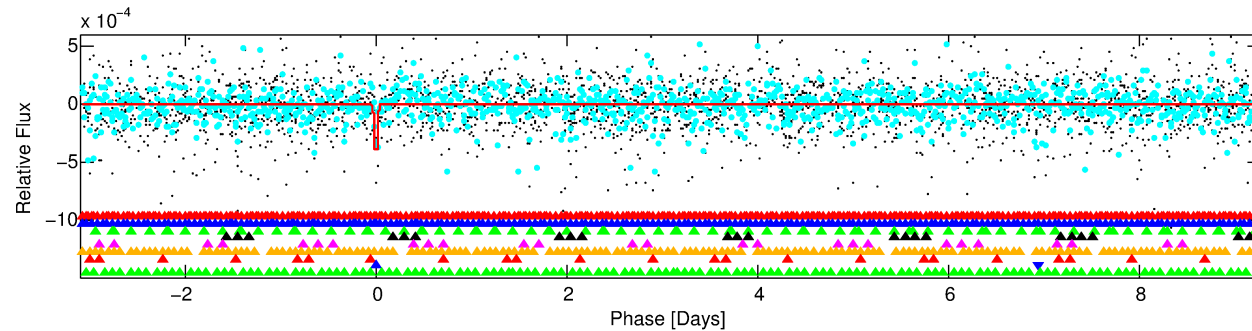
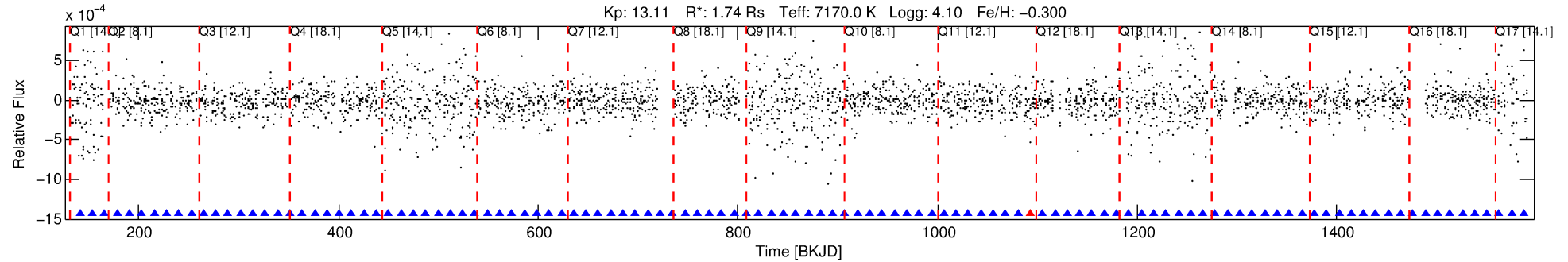
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006522735-08

No Significant Match Found

DV One-Page Summary

KIC: 6522735 Candidate: 8 of 9 Period: 12.358 d



DV Fit Results:

Period = 12.35841 [0.00010] d
Epoch = 141.4014 [0.0058] BKJD
Rp/R* = 0.0192 [0.0168]
a/R* = 72.13 [387.94]
b = 0.50 [8.06]
Seff = 525.07 [196.23]
Teq = 1221 [114] K
Rp = 3.65 [3.37] Re
a = 0.1169 [0.0284] AU
Ag = 83.48 [152.23] [0.54 σ]
Teffp = 5705 [2564] K [1.75 σ]

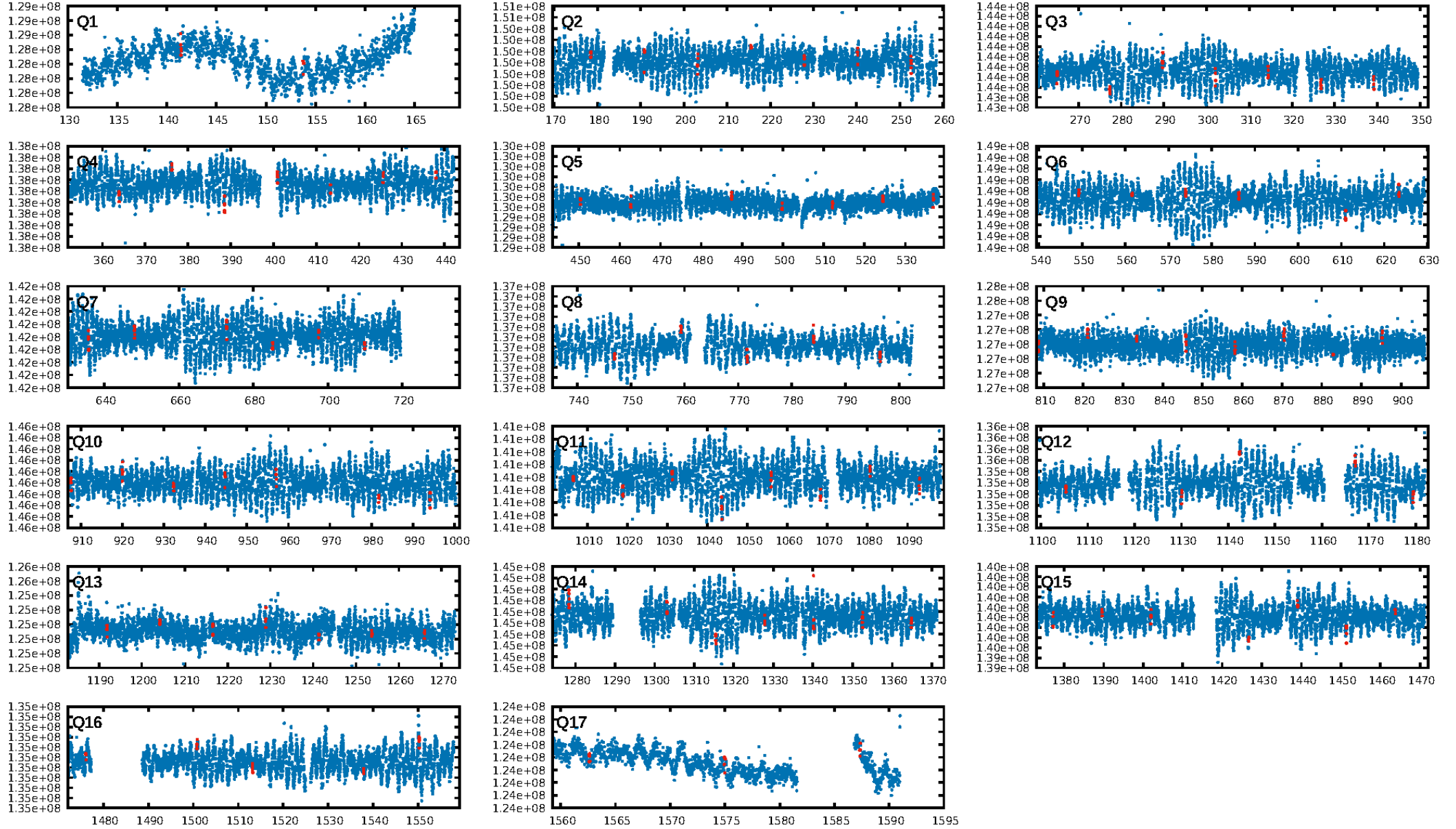
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [25.76 σ]
LongPeriod-sig: 100.0% [24.81 σ]
ModelChiSquare2-sig: 19.4%
ModelChiSquareGof-sig: 98.7%
Bootstrap-pfa: 6.32e-13
RollingBand-fgt: 0.90 [9/10]
GhostDiagnostic-chr: -0.1133
Centroid-sig: 6.4%
Centroid-so: 0.661 arcsec [2.39 σ]
OotOffset-rm: 0.609 arcsec [1.05 σ]
KicOffset-rm: 0.579 arcsec [1.03 σ]
OotOffset-st: 3/1/2/3 [9]
KicOffset-st: 3/1/2/3 [9]
DiffImageQuality-fgm: 0.33 [3/9]
DiffImageOverlap-fno: 0.88 [15/17]

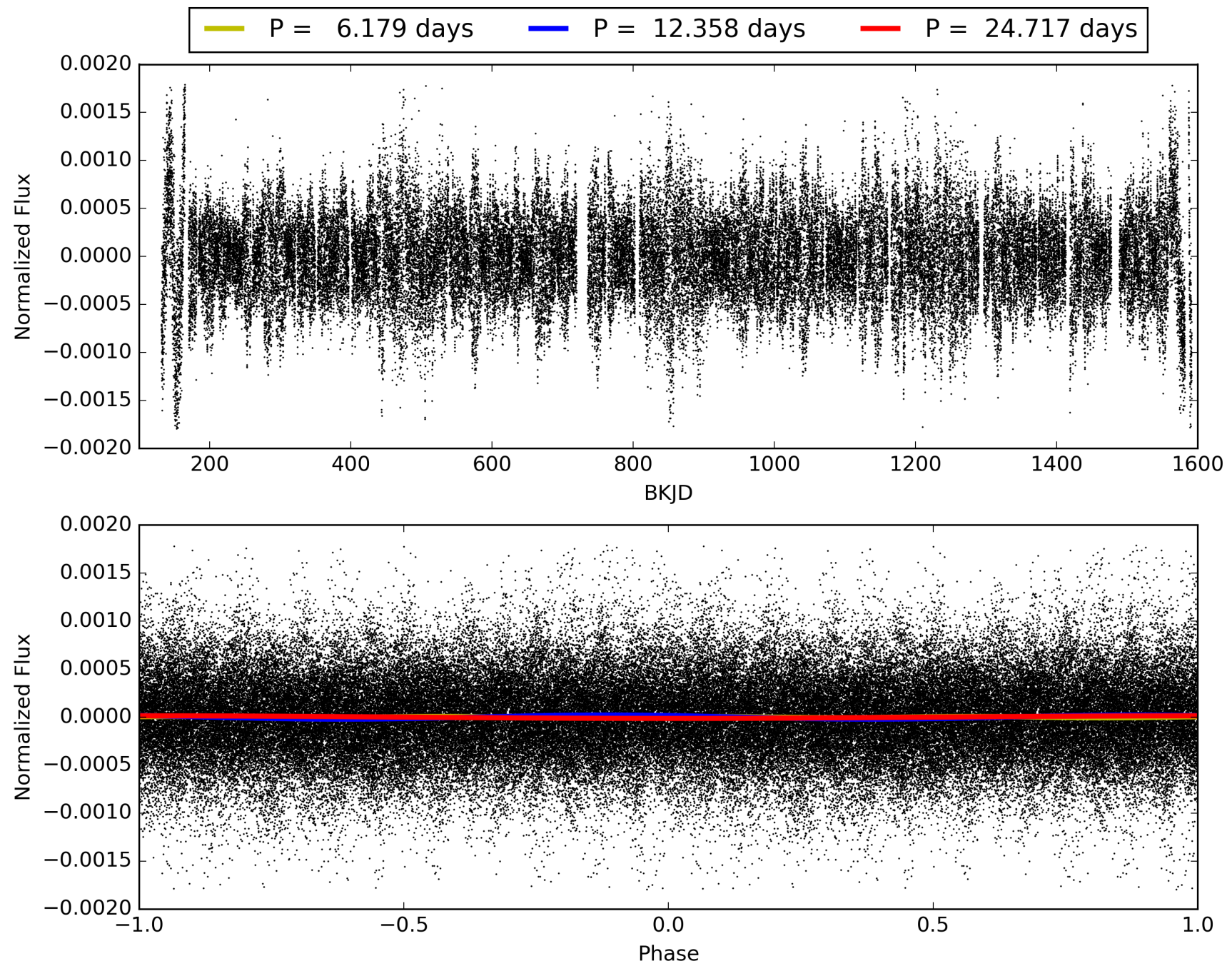
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 08:44:35 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006522735-08, PDC Light Curves

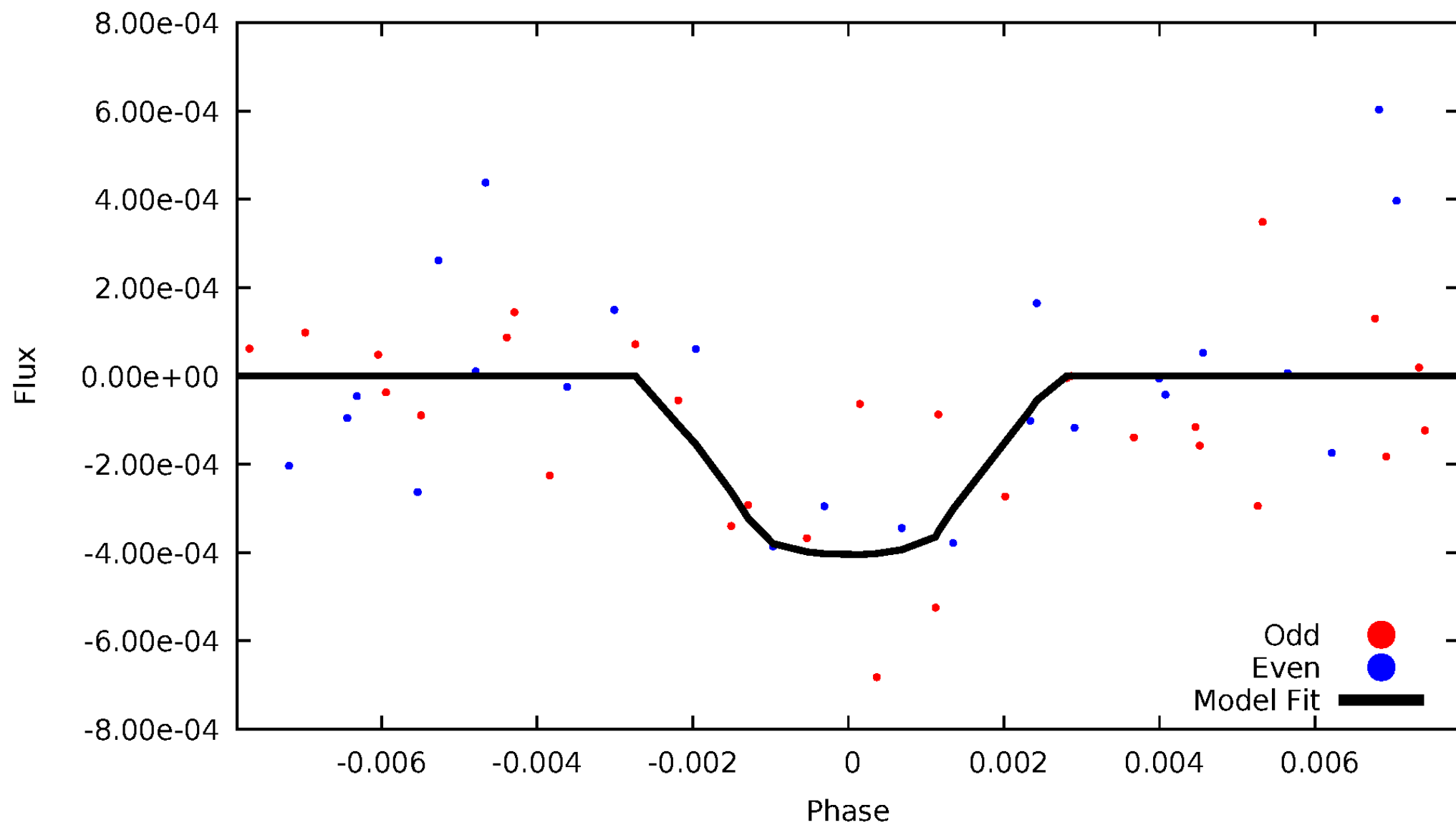


TCE 006522735-08



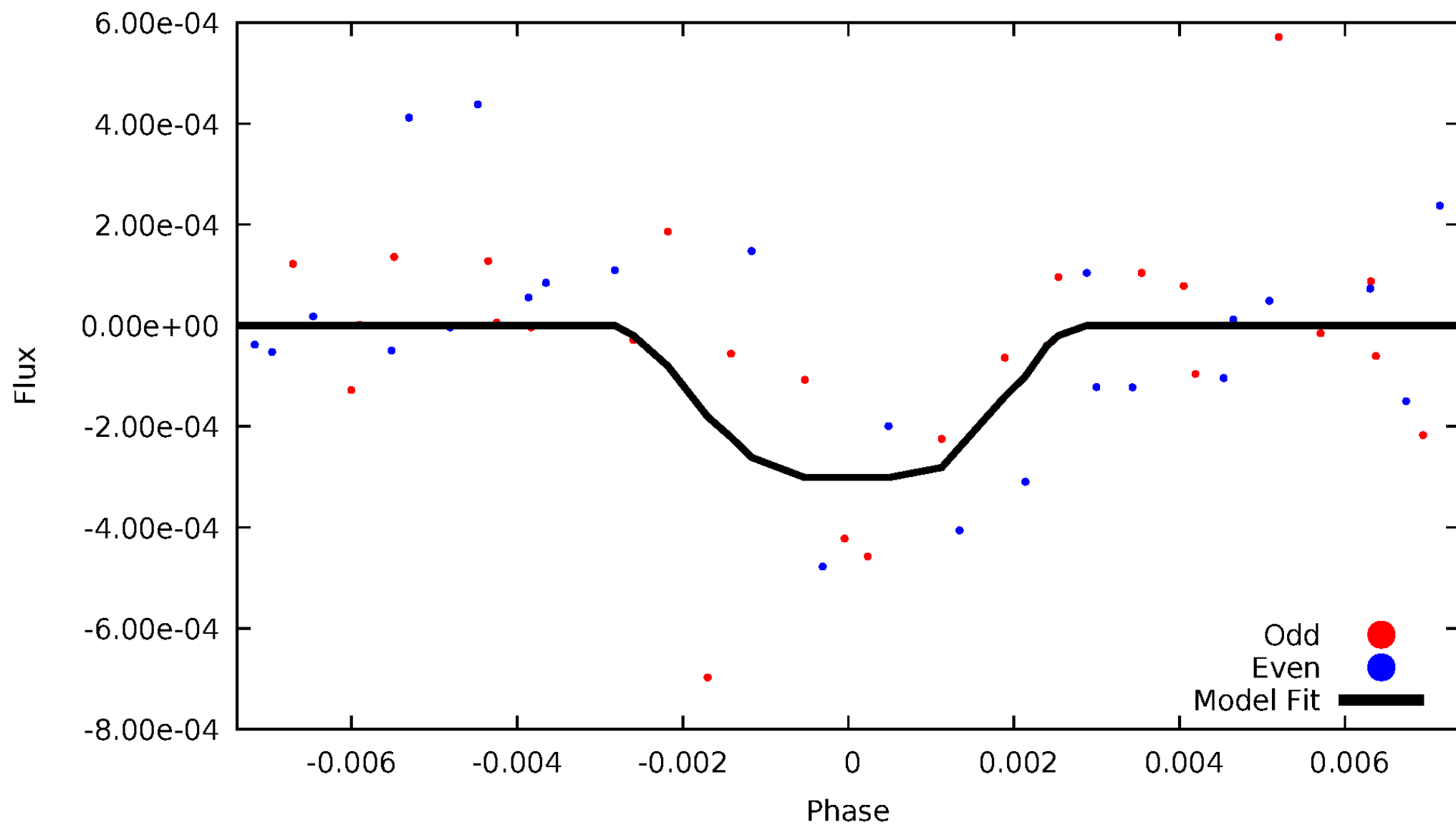
DV Odd/Even

TCE 006522735-08



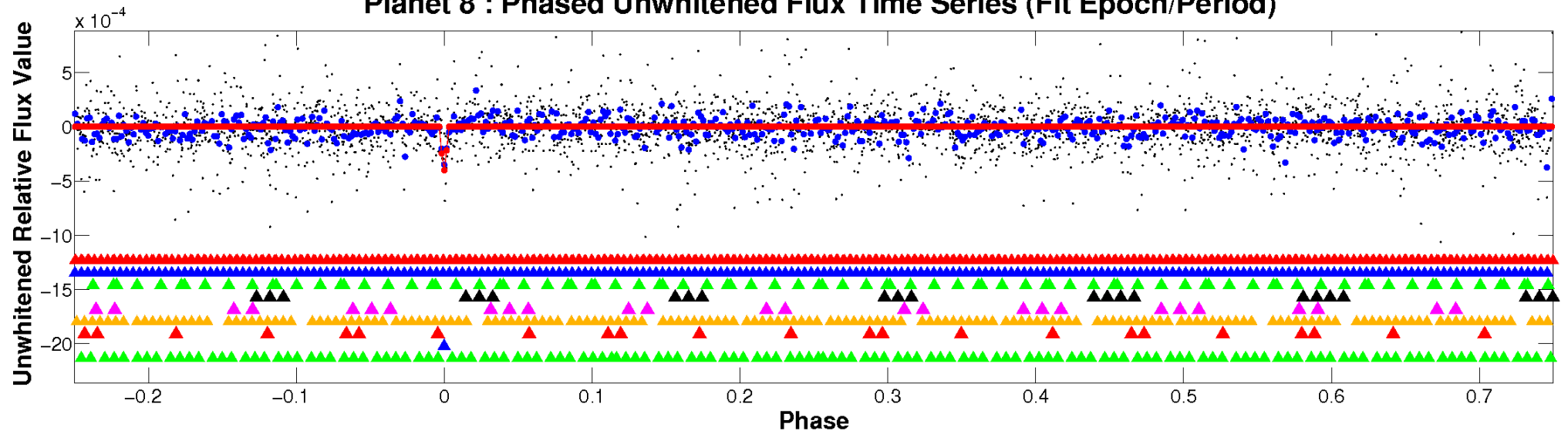
ALT Odd/Even

TCE 006522735-08

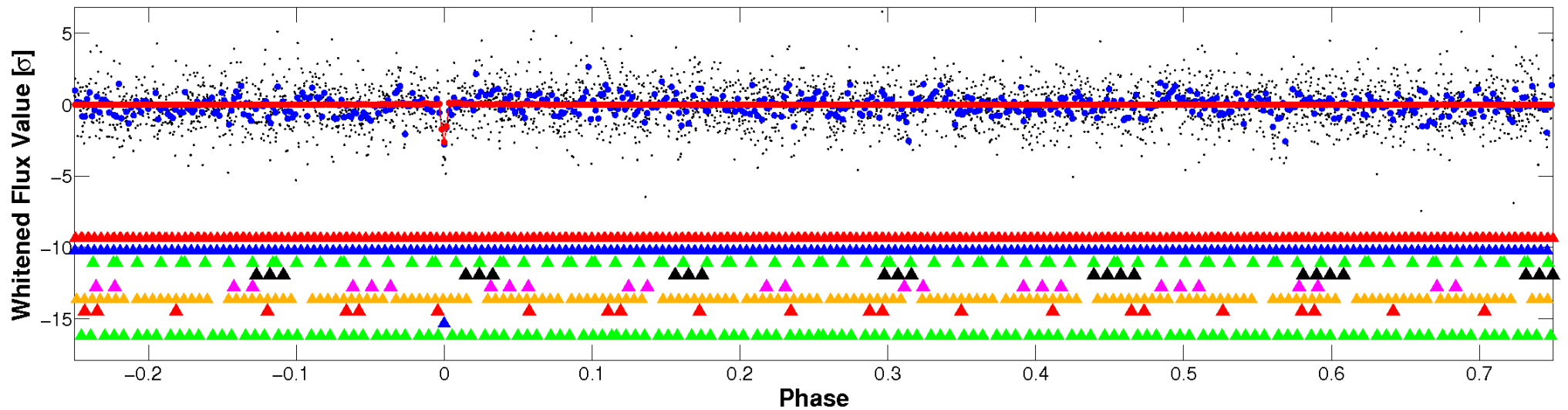


Non-Whitened Vs. Whitened Light Curve

Planet 8 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

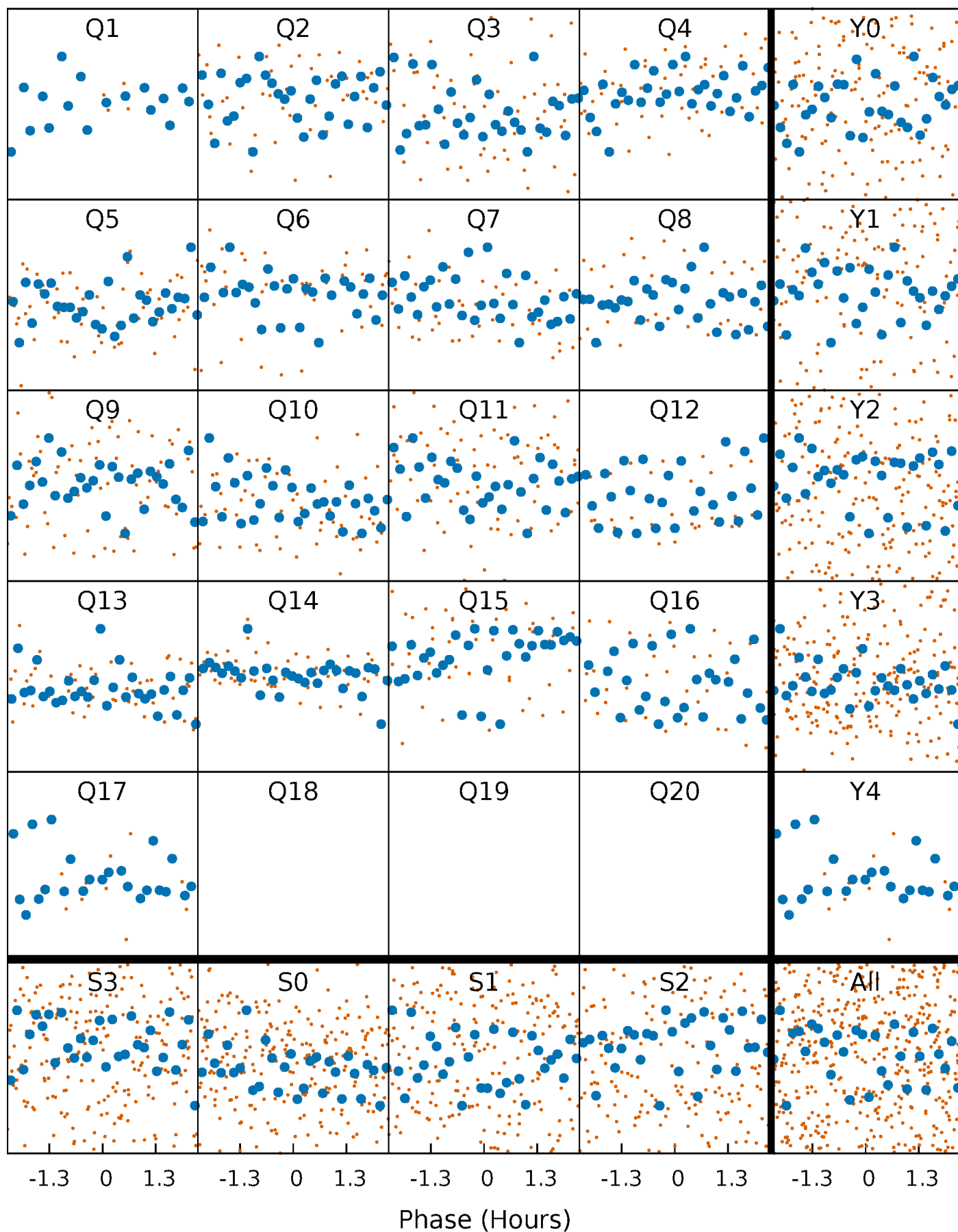


Planet 8 : Phased Whitened Flux Time Series (Fit Epoch/Period)



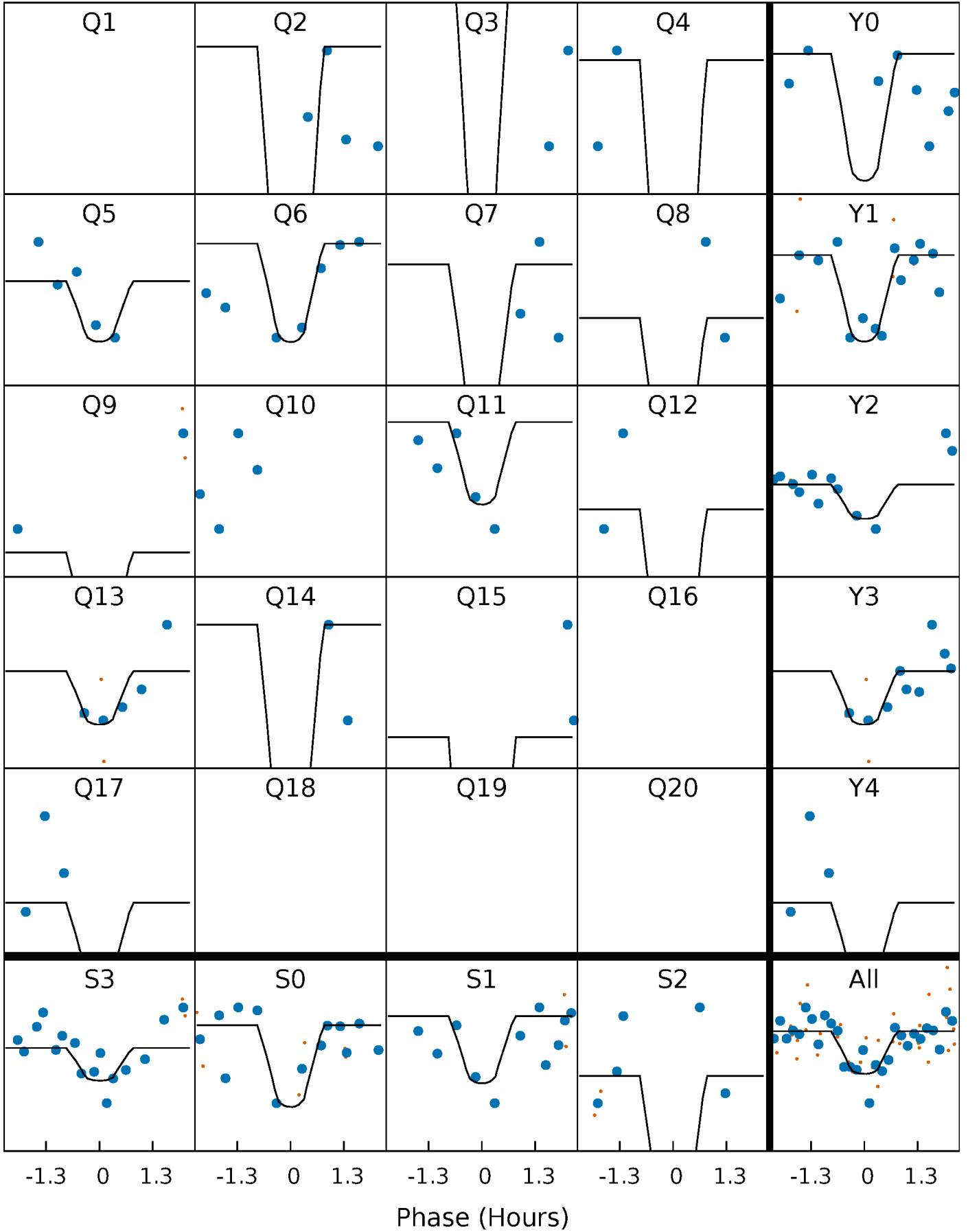
PDC Quarter-Phased Transit Curves

TCE 006522735-08 P= 12.358411 Days $T_0=141.401367$ (BKJD)



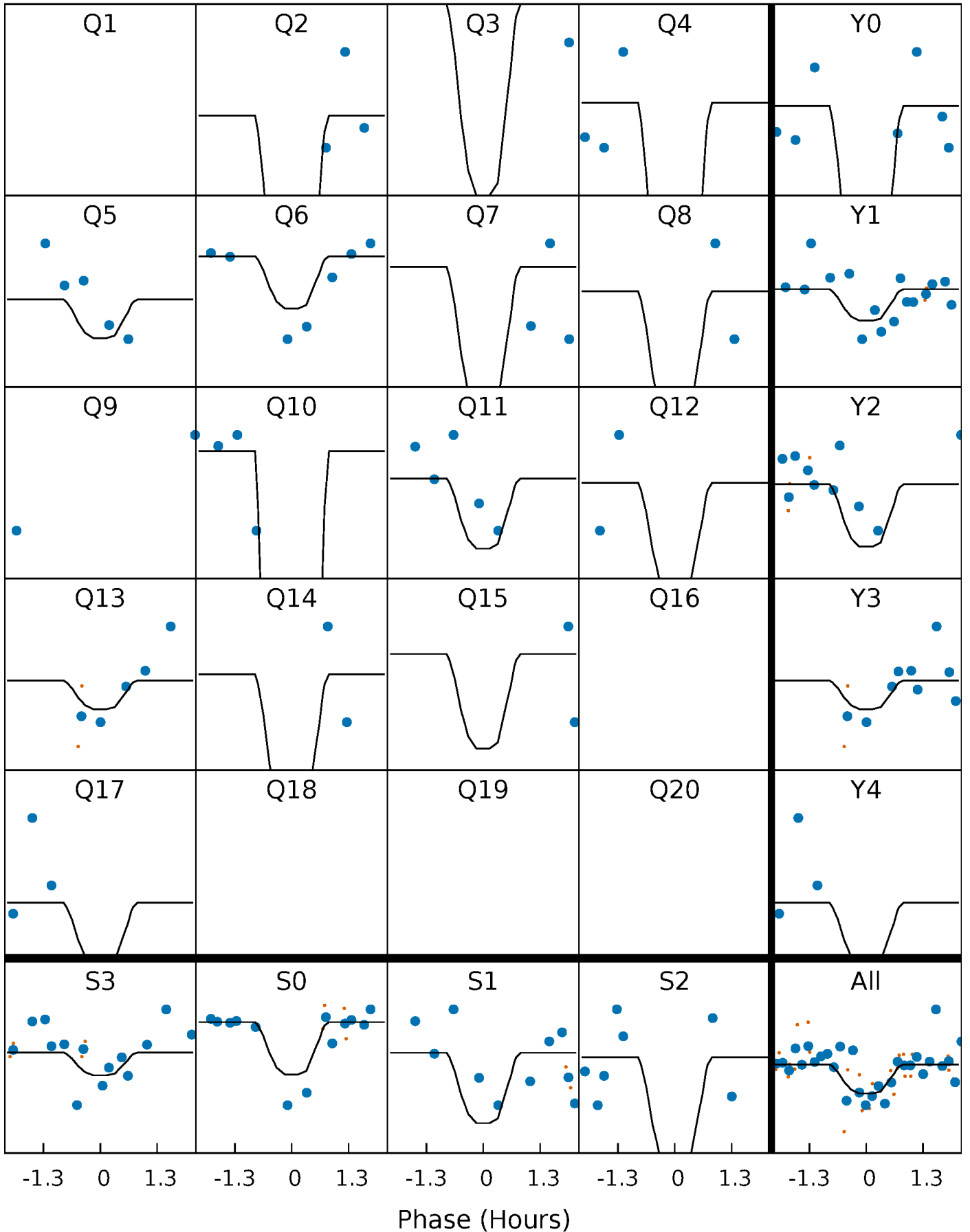
DV Quarter-Phased Transit Curves

TCE 006522735-08 P= 12.358411 Days $T_0=141.401367$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

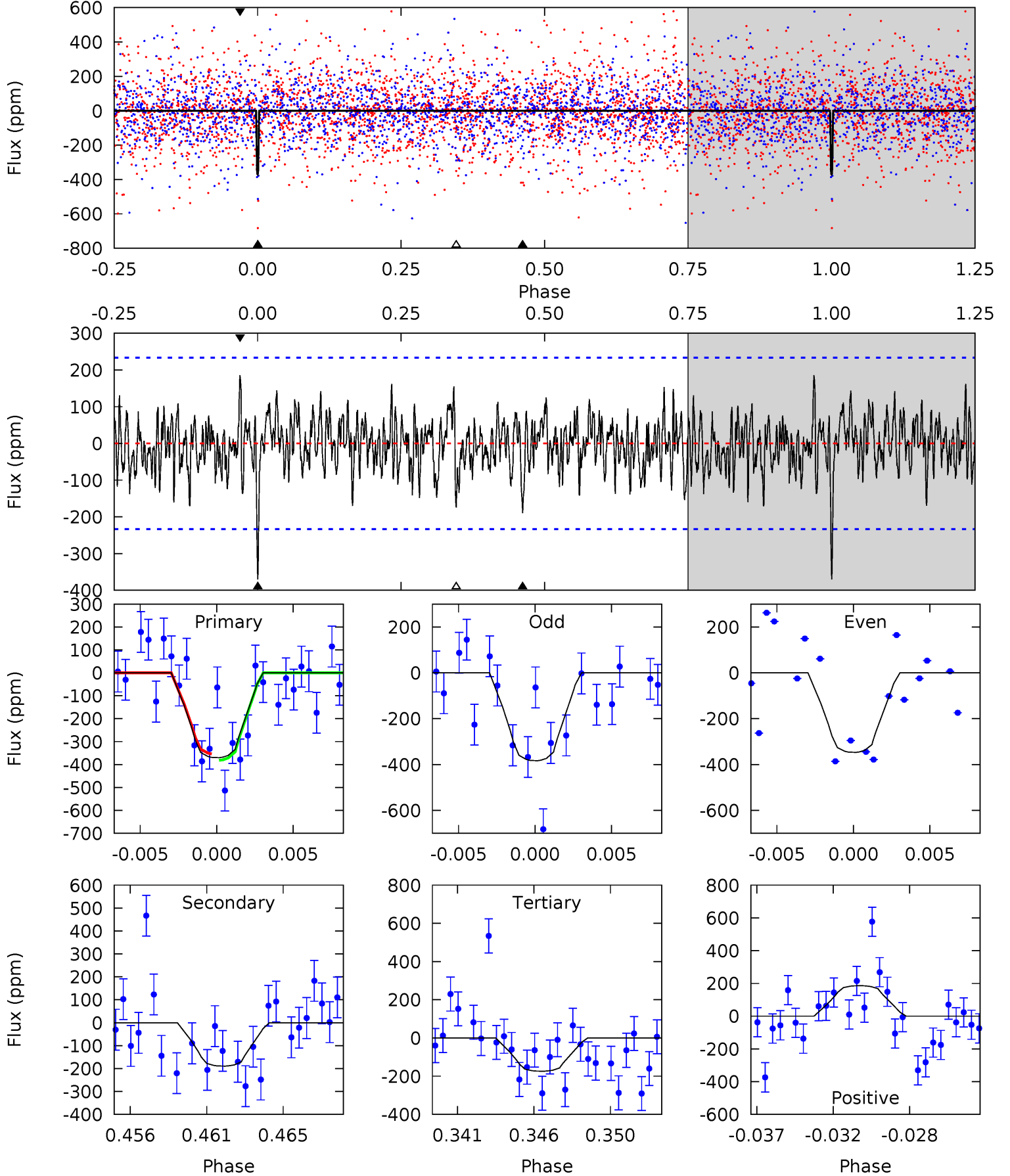
TCE 006522735-08 P= 12.358618 Days $T_0=141.385396$ (BKJD)



DV Model-Shift Uniqueness Test

006522735-08, P = 12.358411 Days, E = 129.042956 Days

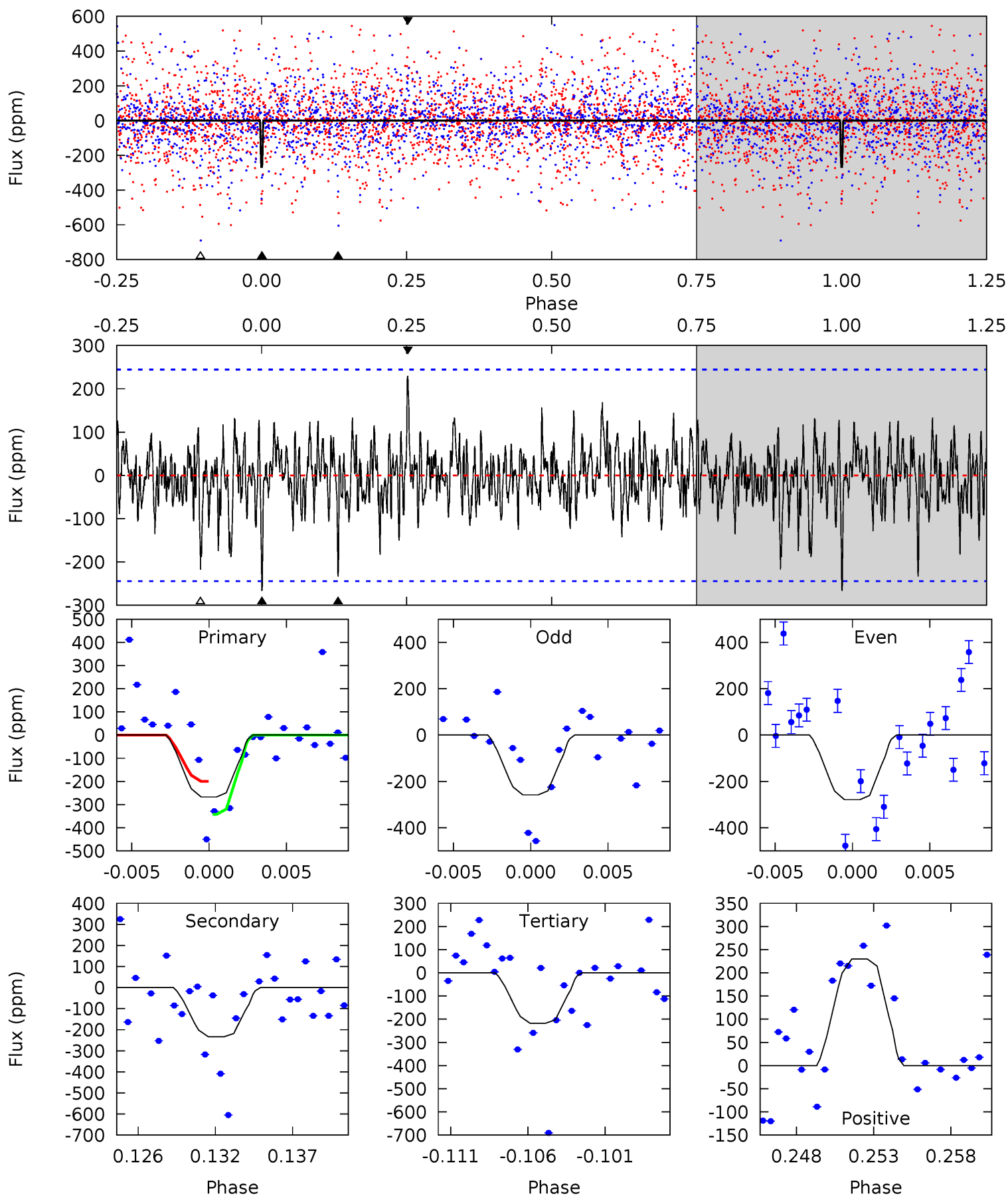
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.20	4.19	3.85	4.11	5.17	2.83	1.29	4.34	4.08	0.34	0.08	0.40	1.01	0.33	0.31



Alt Model-Shift Uniqueness Test

006522735-08, P = 12.358618 Days, E = 129.026778 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.63	4.93	4.59	4.85	5.16	2.80	1.21	1.04	0.78	0.34	0.08	0.22	1.09	0.46	1.50



Stellar Parameters For KIC 006522735

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7170^{+199}_{-274}	$4.101^{+0.180}_{-0.180}$	$-0.300^{+0.250}_{-0.350}$	$1.741^{+0.522}_{-0.475}$	$1.397^{+0.205}_{-0.228}$	$0.373^{+0.384}_{-0.177}$
	+3%/-4%	+4%/-4%	+83%/-117%	+30%/-27%	+15%/-16%	+103%/-47%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 006522735-08 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-189 ± 45	$4.05^{+2.91}_{-2.46}$	1708^{+129}_{-126}	5686^{+4171}_{-1221}	84^{+503}_{-57}
Alt.	-234 ± 47	$3.91^{+3.03}_{-2.43}$	1711^{+130}_{-122}	6154^{+4961}_{-1390}	116^{+624}_{-81}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming A=0.3)

A_{obs} = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

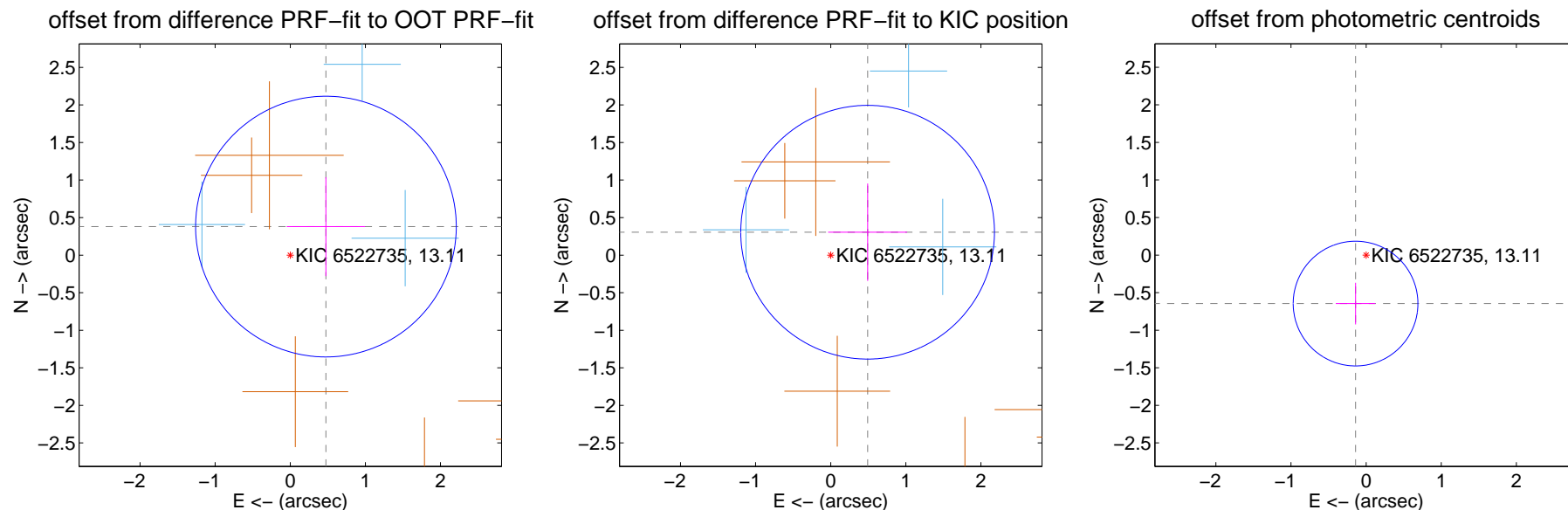
DV Centroid Data

Supplemental centroid analysis for 006522735-08. Kepler magnitude: 13.11. Transit SNR 8.85

There are 3 quarters with good PRF difference image offsets

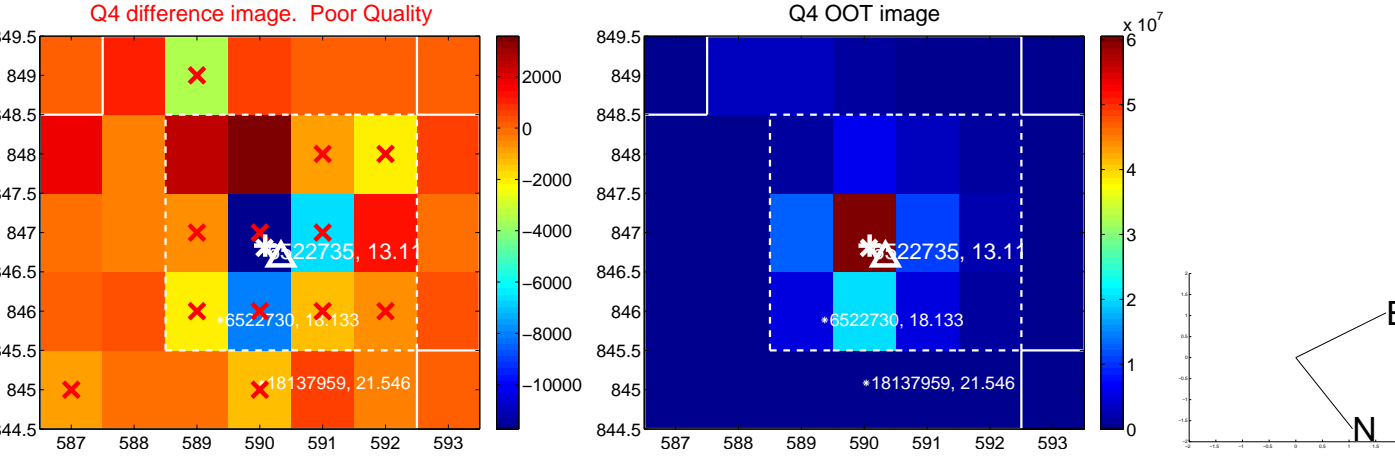
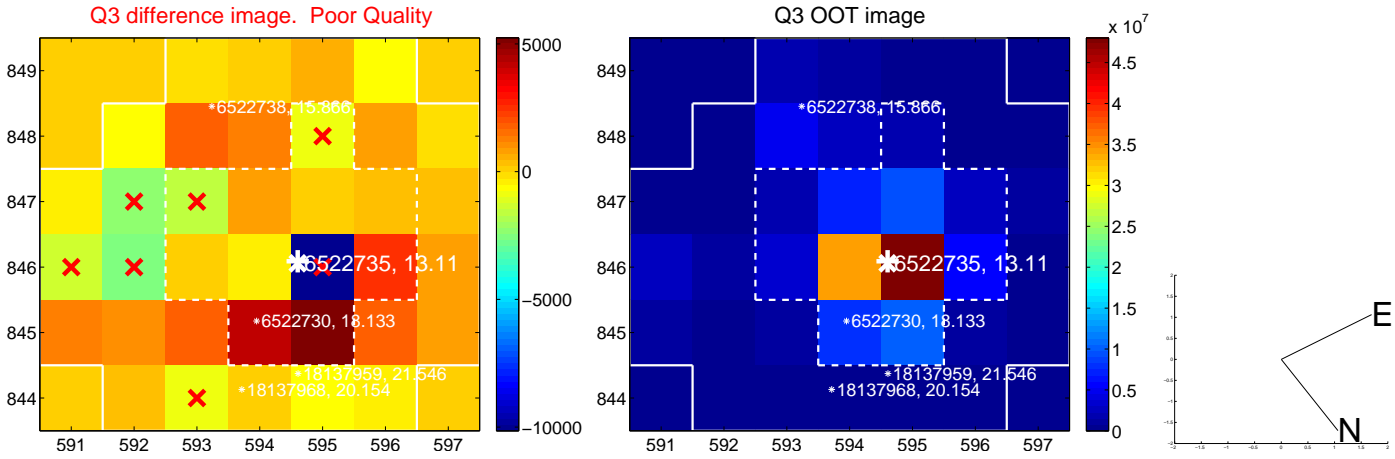
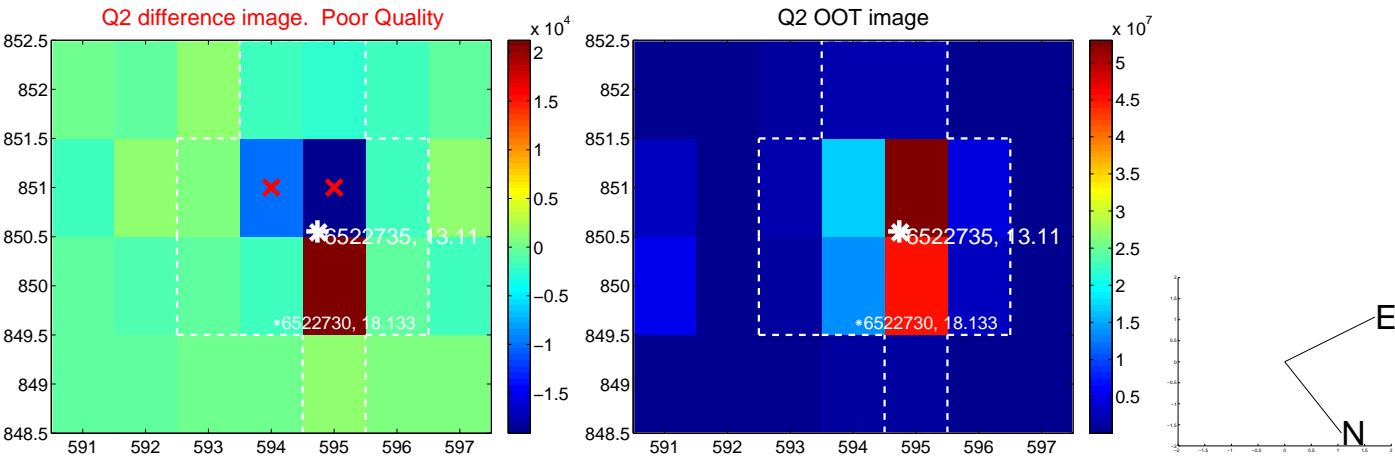
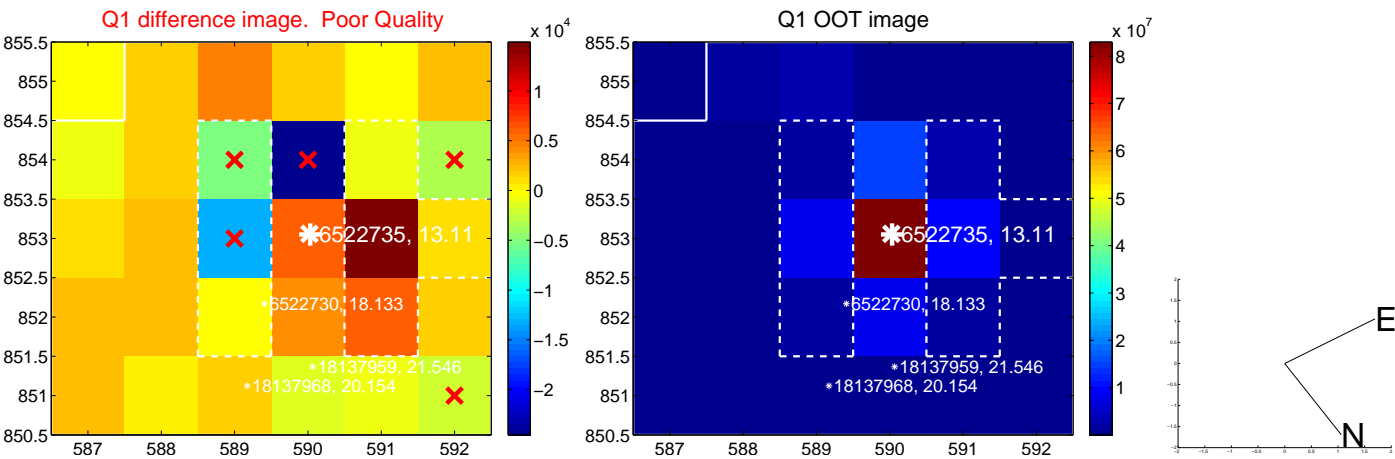
The direct PRF centroid is offset from the target star catalog position by about 0.02 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.609 ± 0.579	1.05	-0.475 ± 0.522	0.380 ± 0.657
PRF-fit source offset from KIC position	0.579 ± 0.563	1.03	-0.491 ± 0.527	0.305 ± 0.648
photometric centroid source offset	0.66 ± 0.28	2.39	0.14 ± 0.26	-0.65 ± 0.28

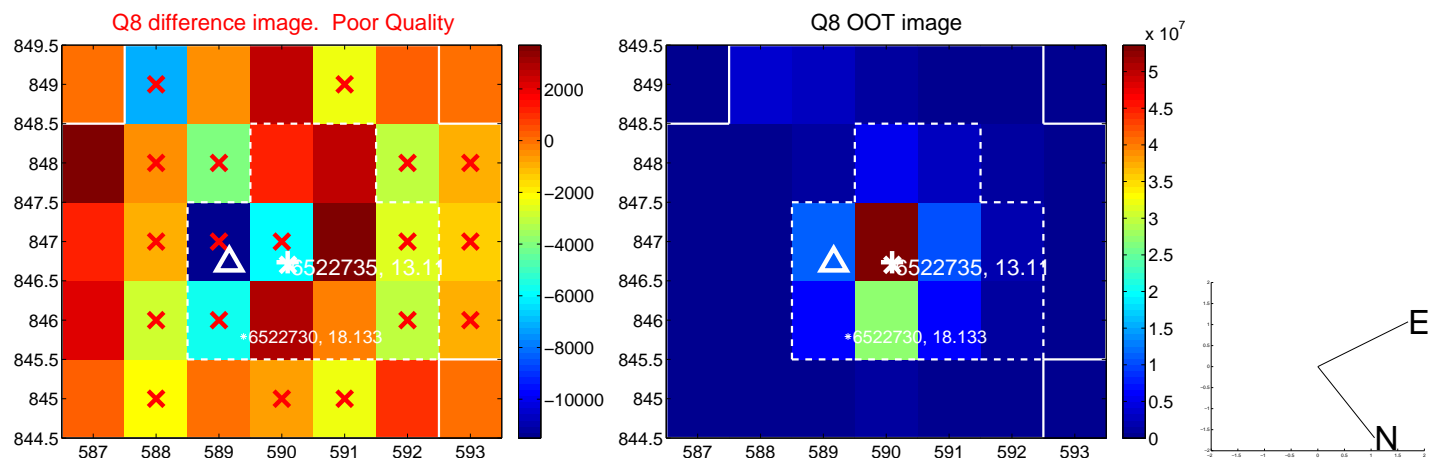
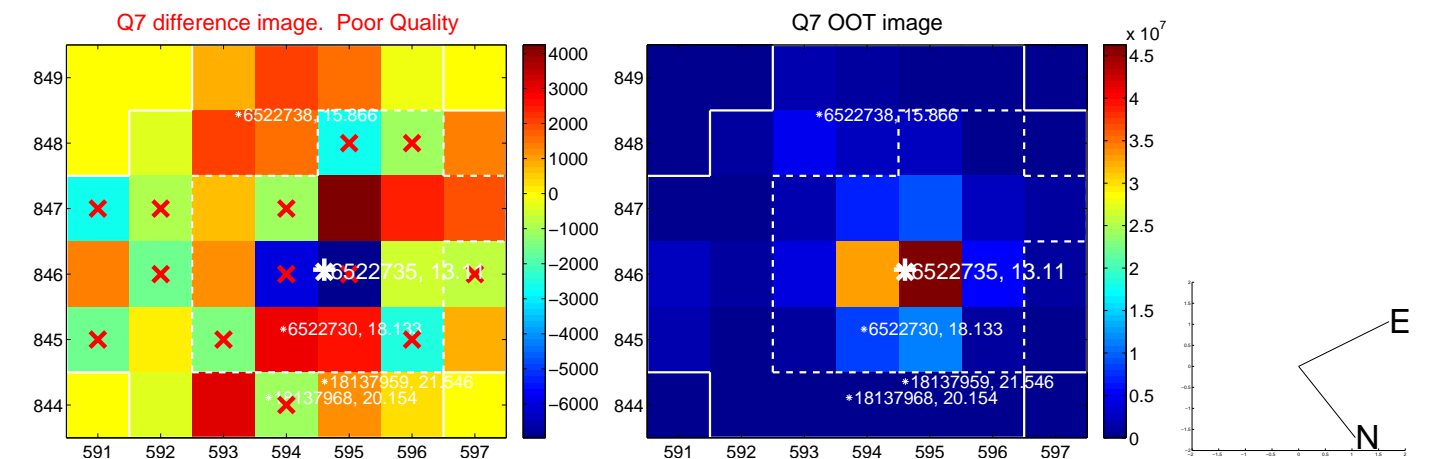
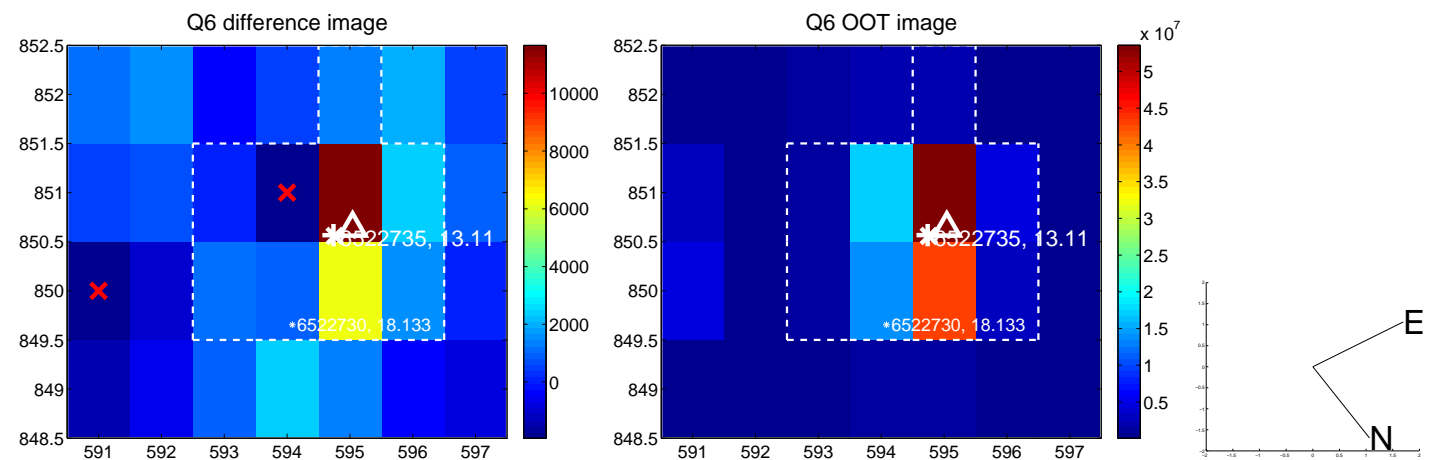
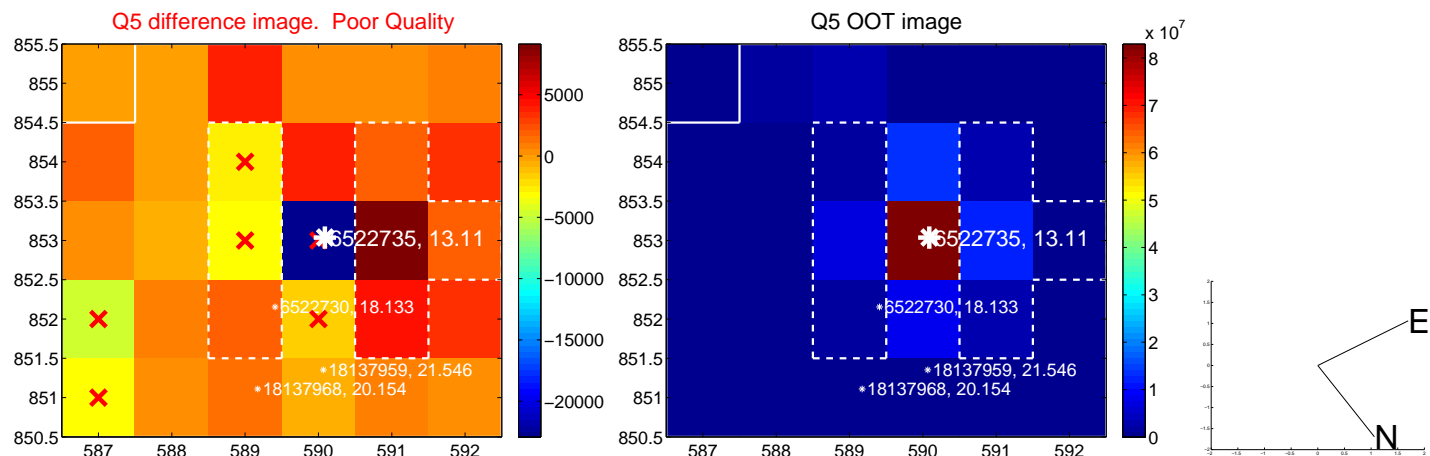


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

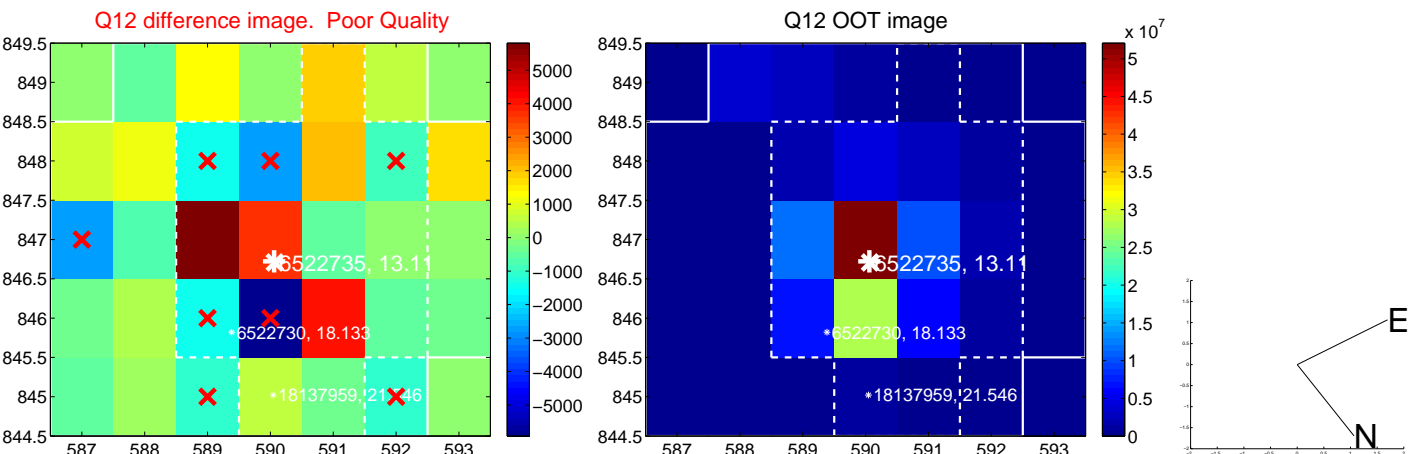
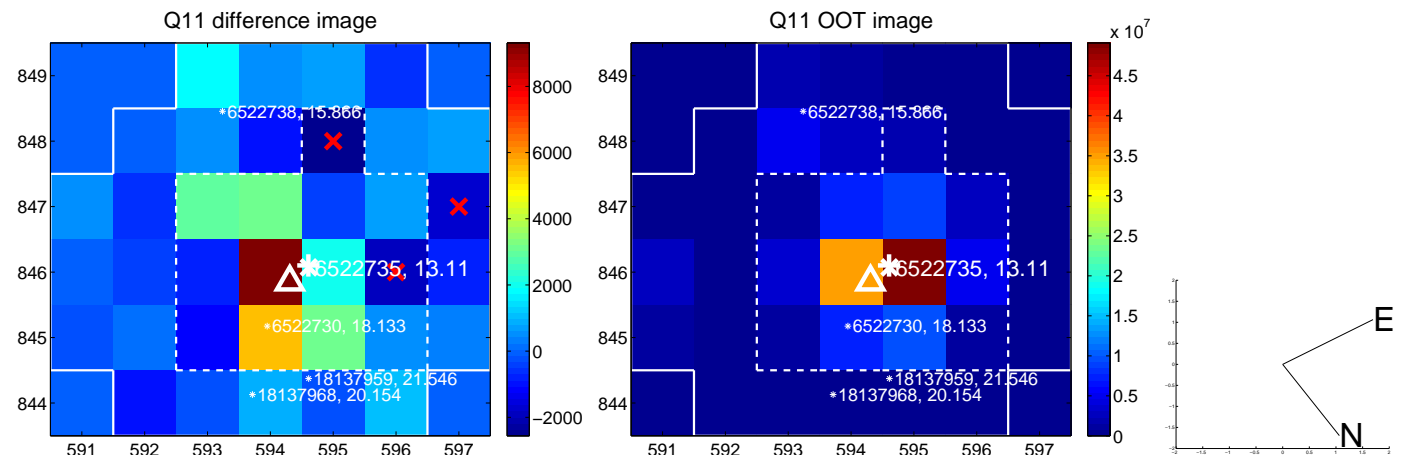
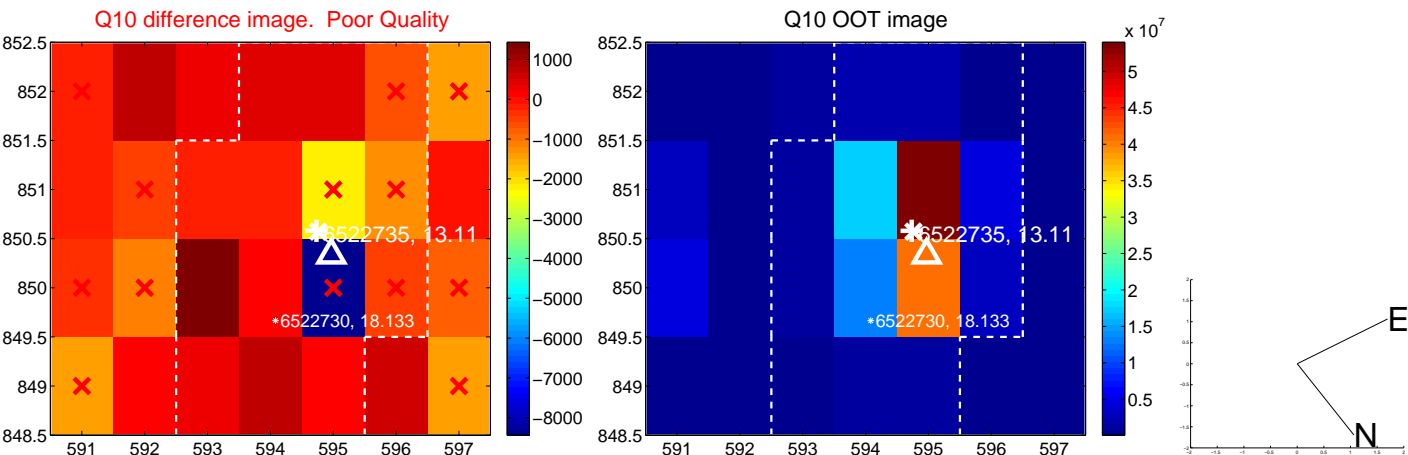
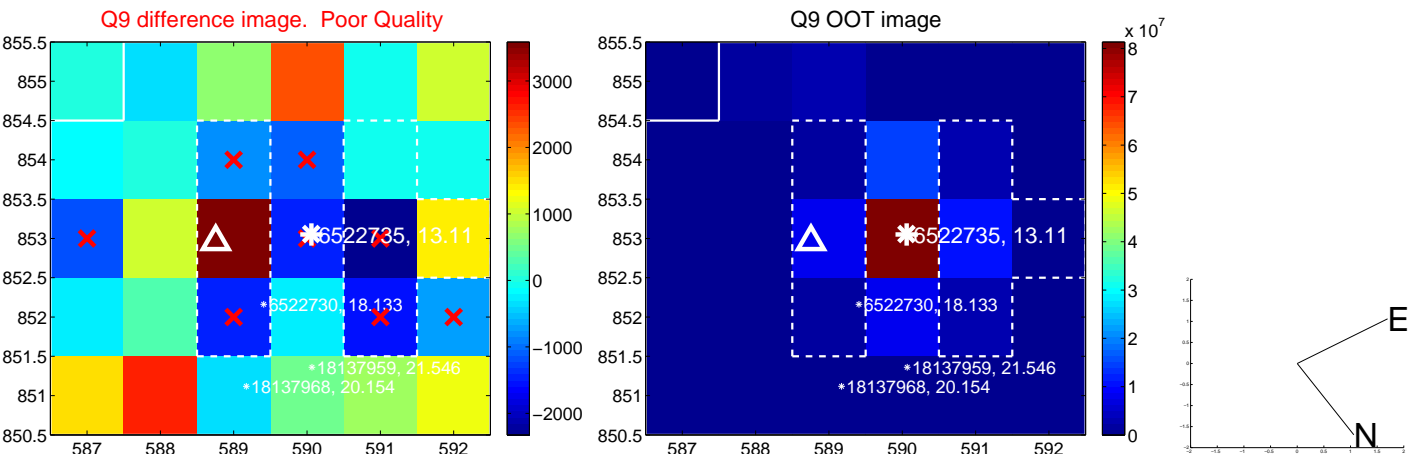
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



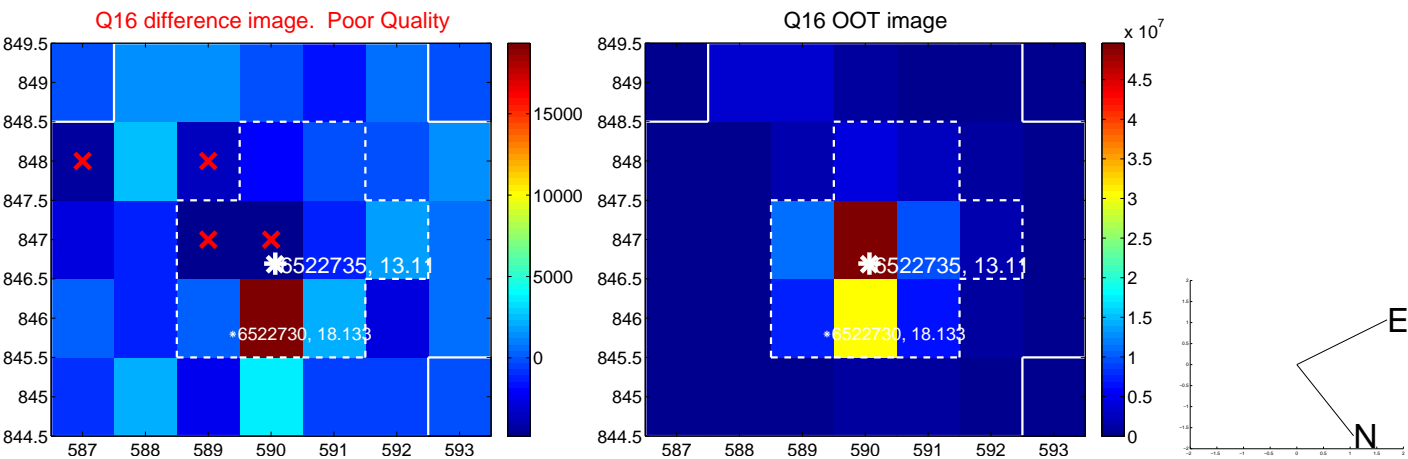
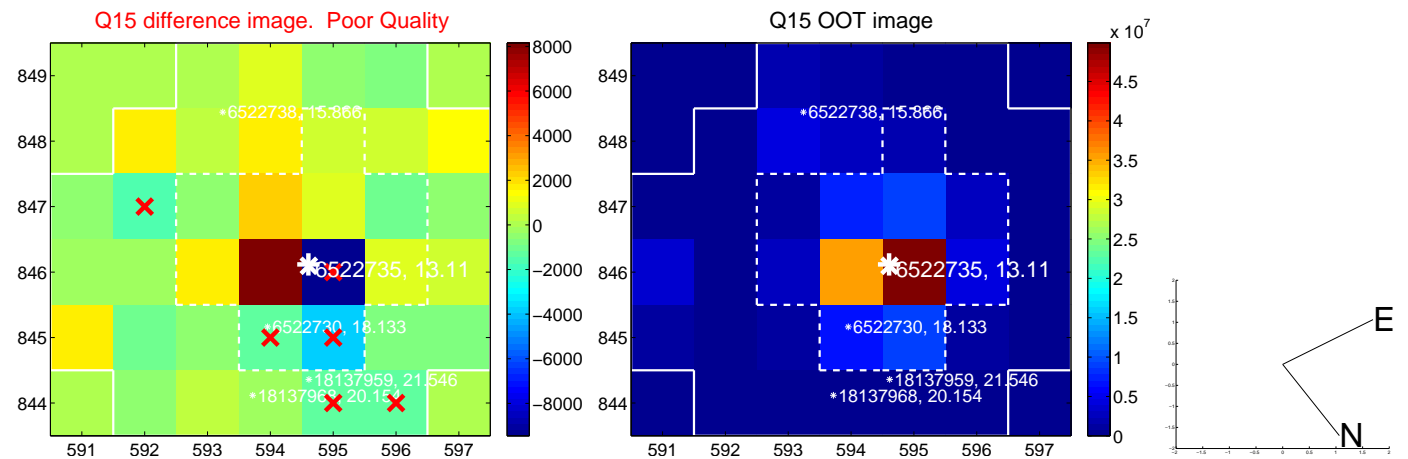
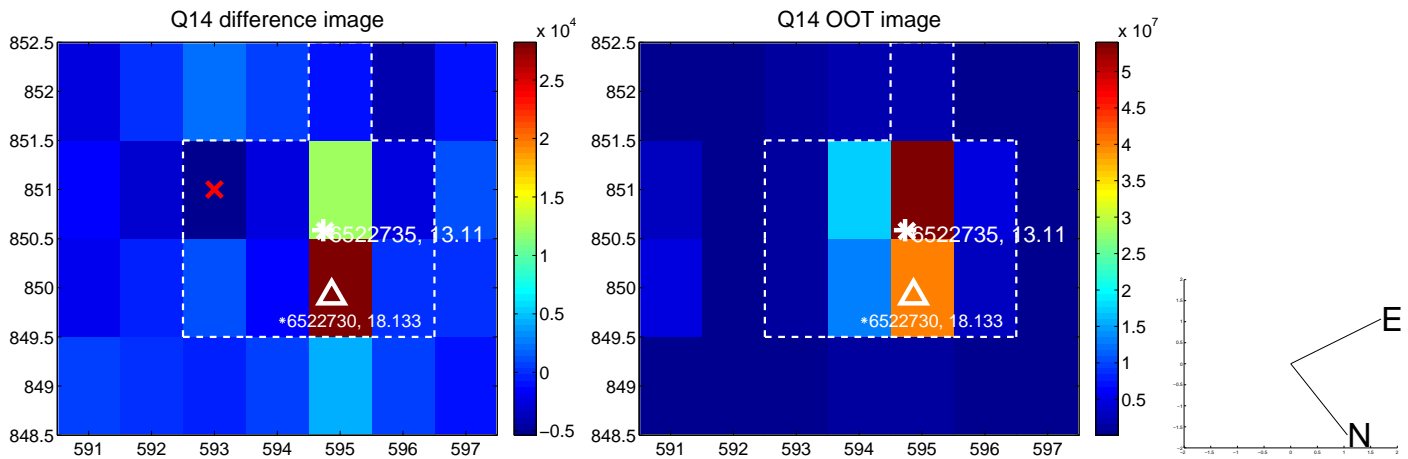
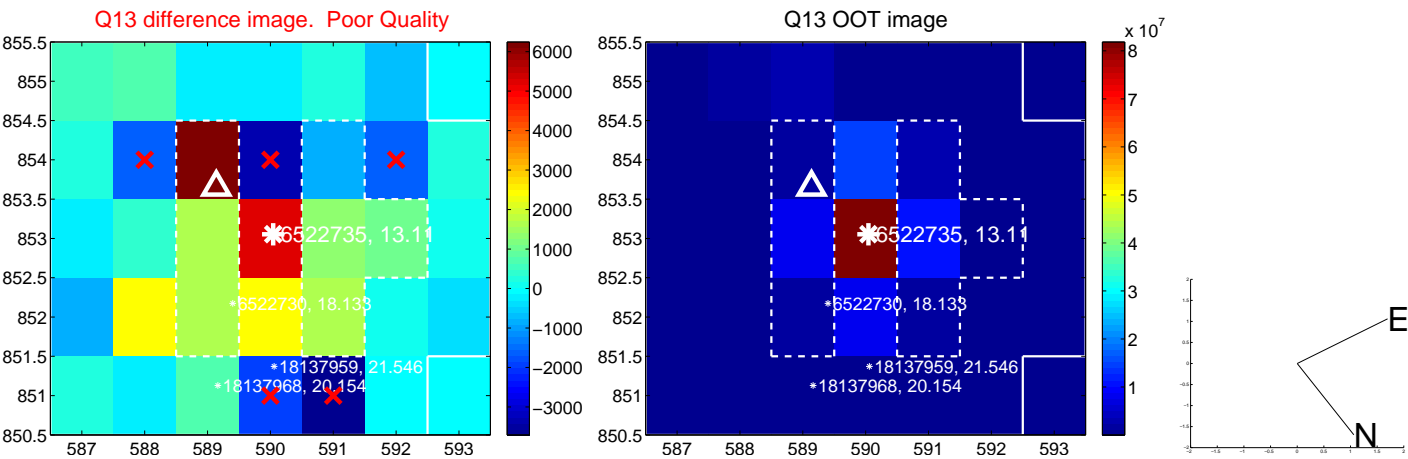
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



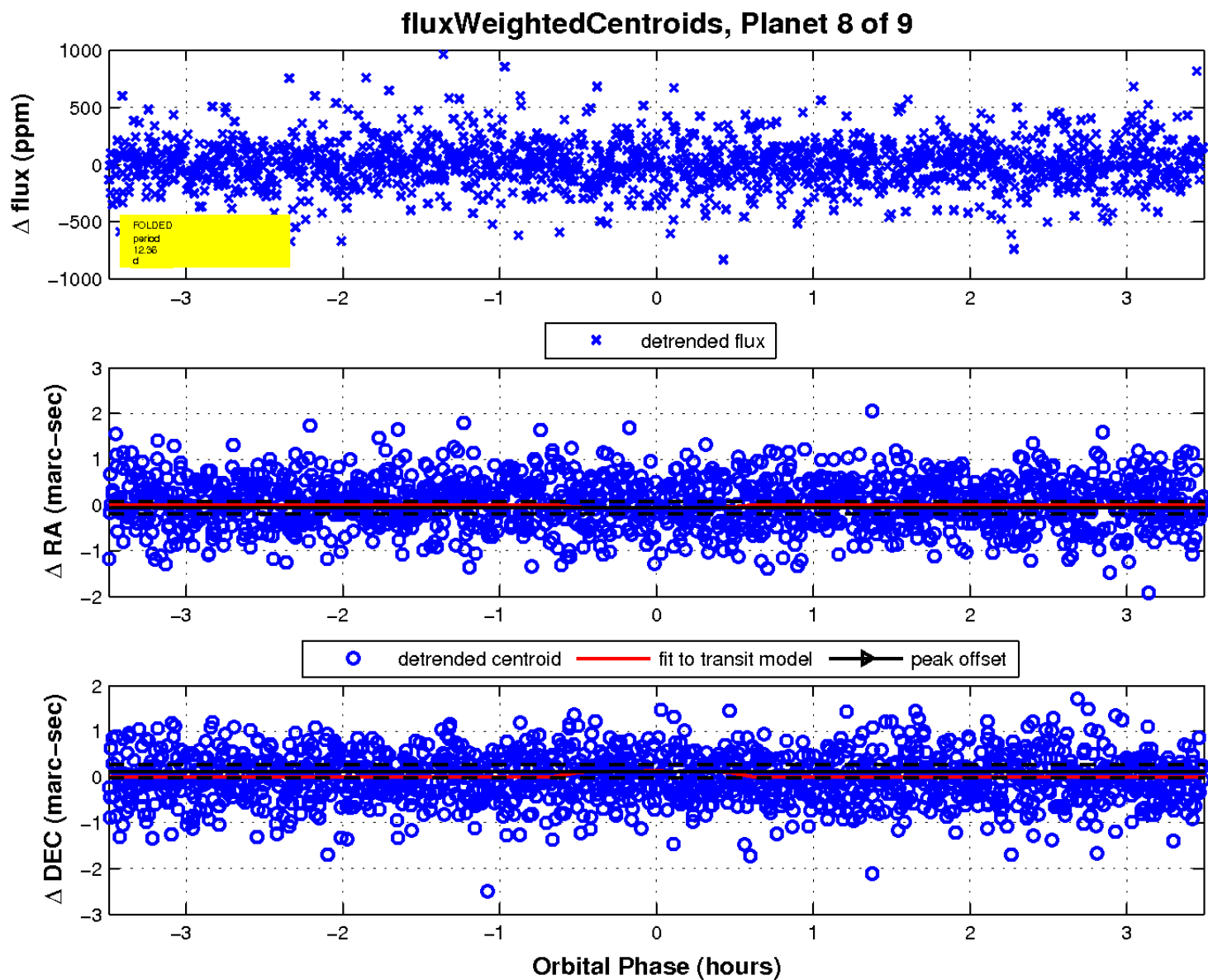
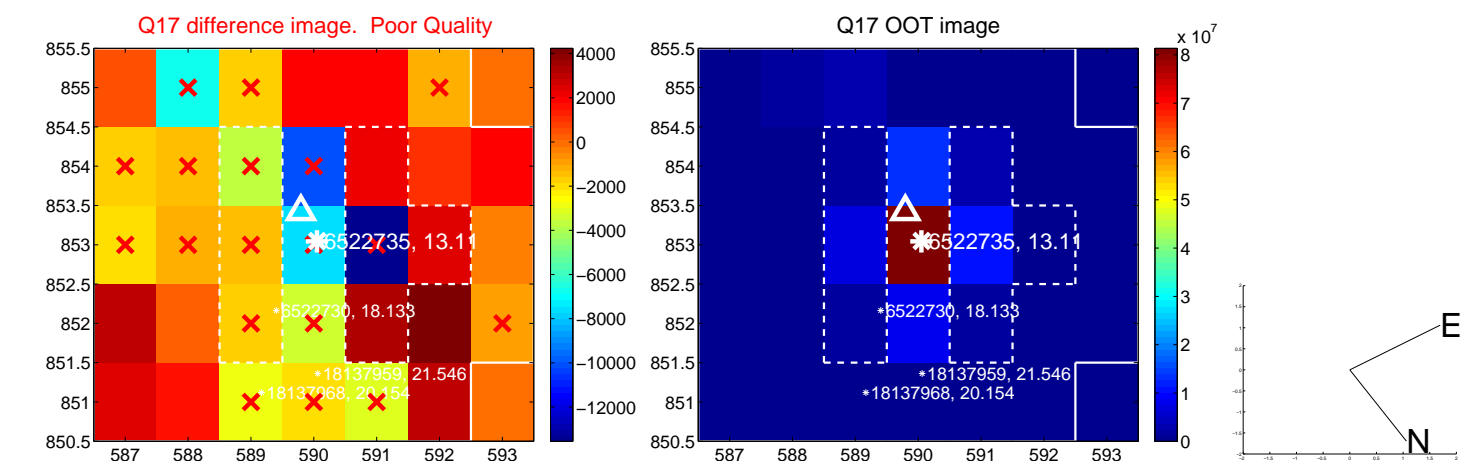
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

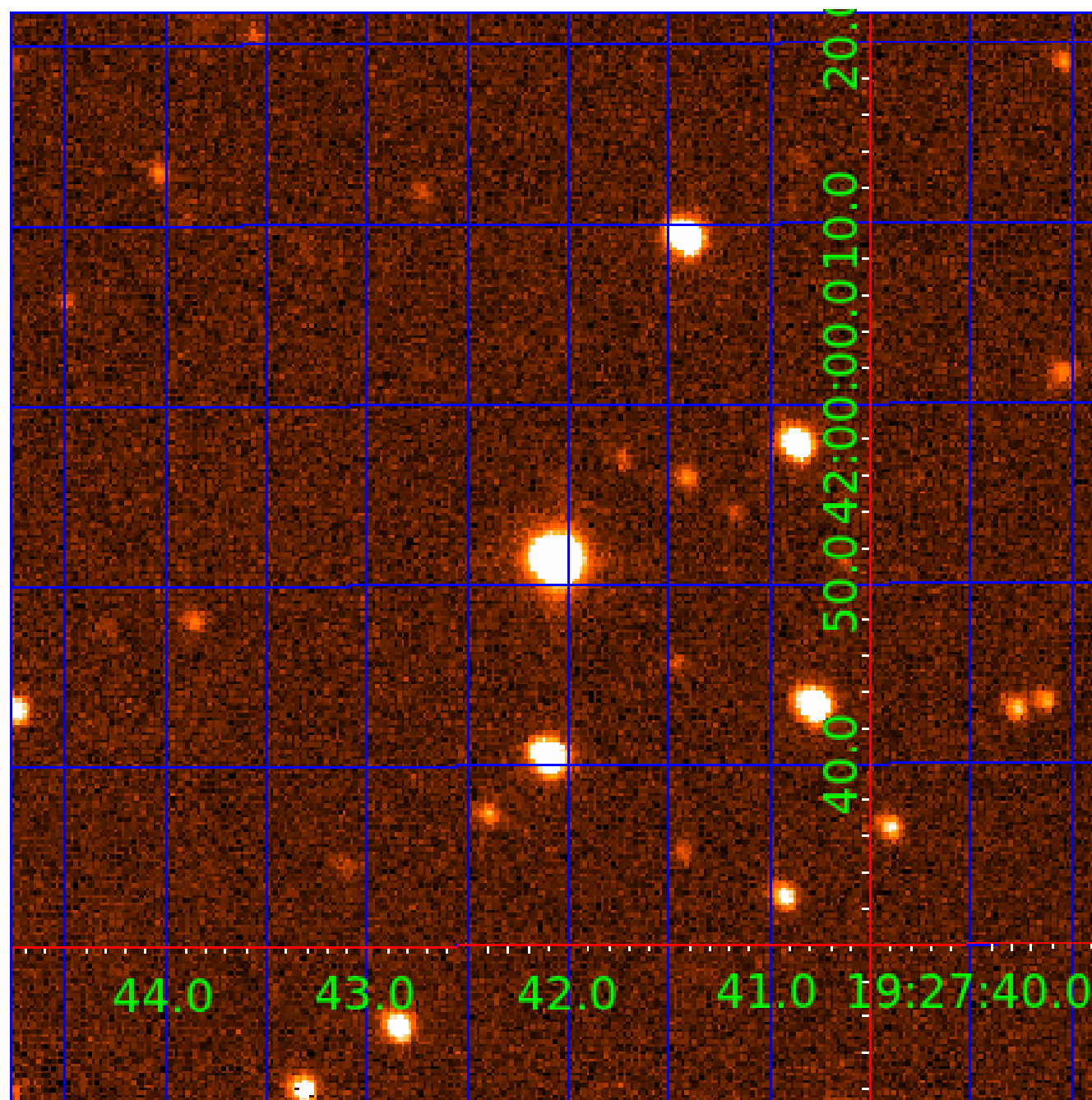


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006522735

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
006522735-01	OBS	No	2.536471	132.265097	36.7	8.777	10.1	8.9	1.74	7170	1.25	4337.07
006522735-02	OBS	No	2.536440	133.513238	38.3	9.982	11.4	10.8	1.74	7170	1.15	4337.15
006522735-03	OBS	No	16.921931	137.872806	157.2	4.259	17.9	4.9	1.74	7170	2.53	345.33
006522735-06	OBS	No	8.727425	132.272232	88.4	1.106	10.3	2.3	1.74	7170	1.70	834.94
006522735-07	OBS	No	63.979141	160.926757	418.7	5.471	13.6	9.9	1.74	7170	4.32	58.63
006522735-08	OBS	No	12.358411	141.401367	404.9	1.165	9.2	8.8	1.74	7170	3.65	525.07
006522735-09	OBS	No	10.632161	132.169697	360.5	1.109	8.6	8.1	1.74	7170	3.37	641.71

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006522735-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
006522735-02	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—SAME_NTL_PERIOD
006522735-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
006522735-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
006522735-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
006522735-08	OBS	FP	0.00	1	0	1	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—HALO_GHOST
006522735-09	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

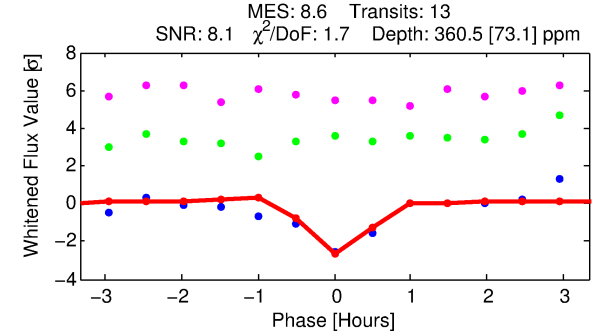
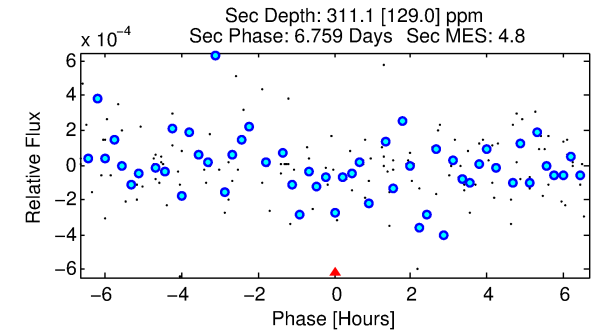
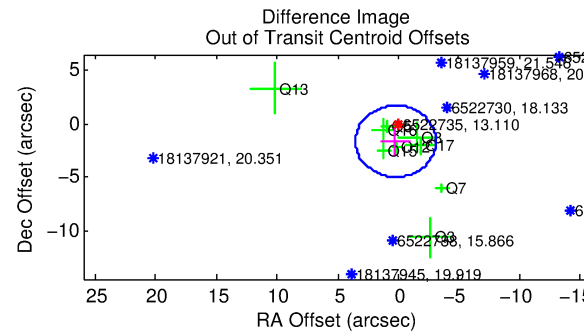
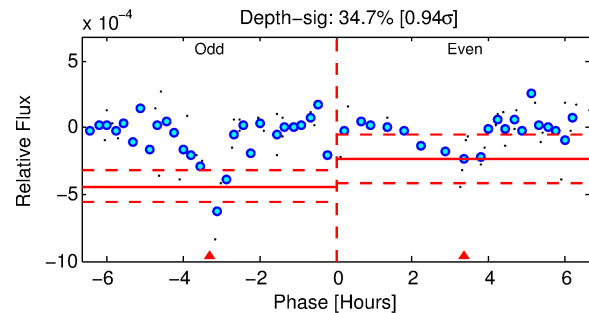
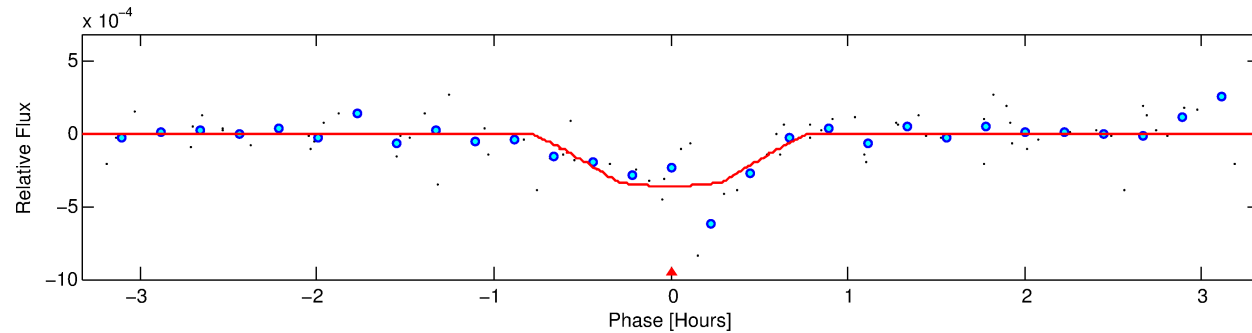
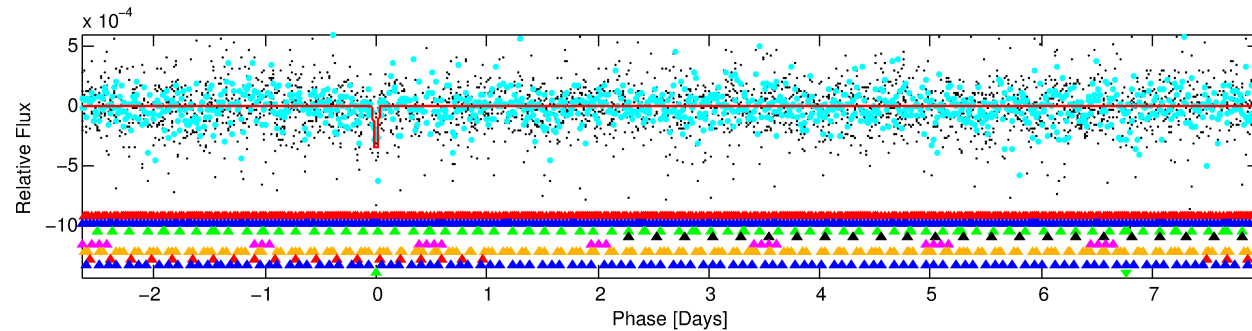
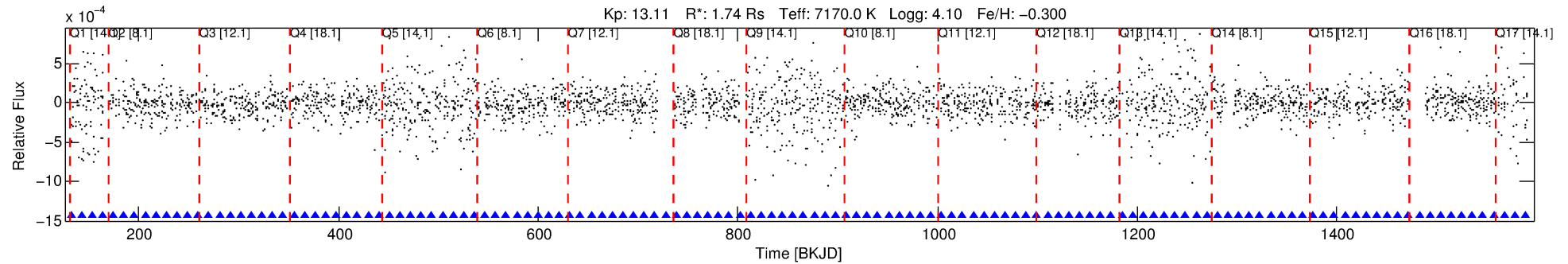
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006522735-09

No Significant Match Found

DV One-Page Summary

KIC: 6522735 Candidate: 9 of 9 Period: 10.632 d



DV Fit Results:

Period = 10.63216 [0.00010] d
Epoch = 132.1697 [0.0070] BKJD
Rp/R* = 0.0177 [0.0302]
a/R* = 74.52 [736.01]
b = 0.01 [1140.31]
Seff = 641.71 [239.82]
Teq = 1283 [120] K
Rp = 3.37 [5.83] Re
a = 0.1058 [0.0257] AU
Ag = 168.90 [582.86] [0.29 σ]
Teffp = 7153 [6147] K [0.95 σ]

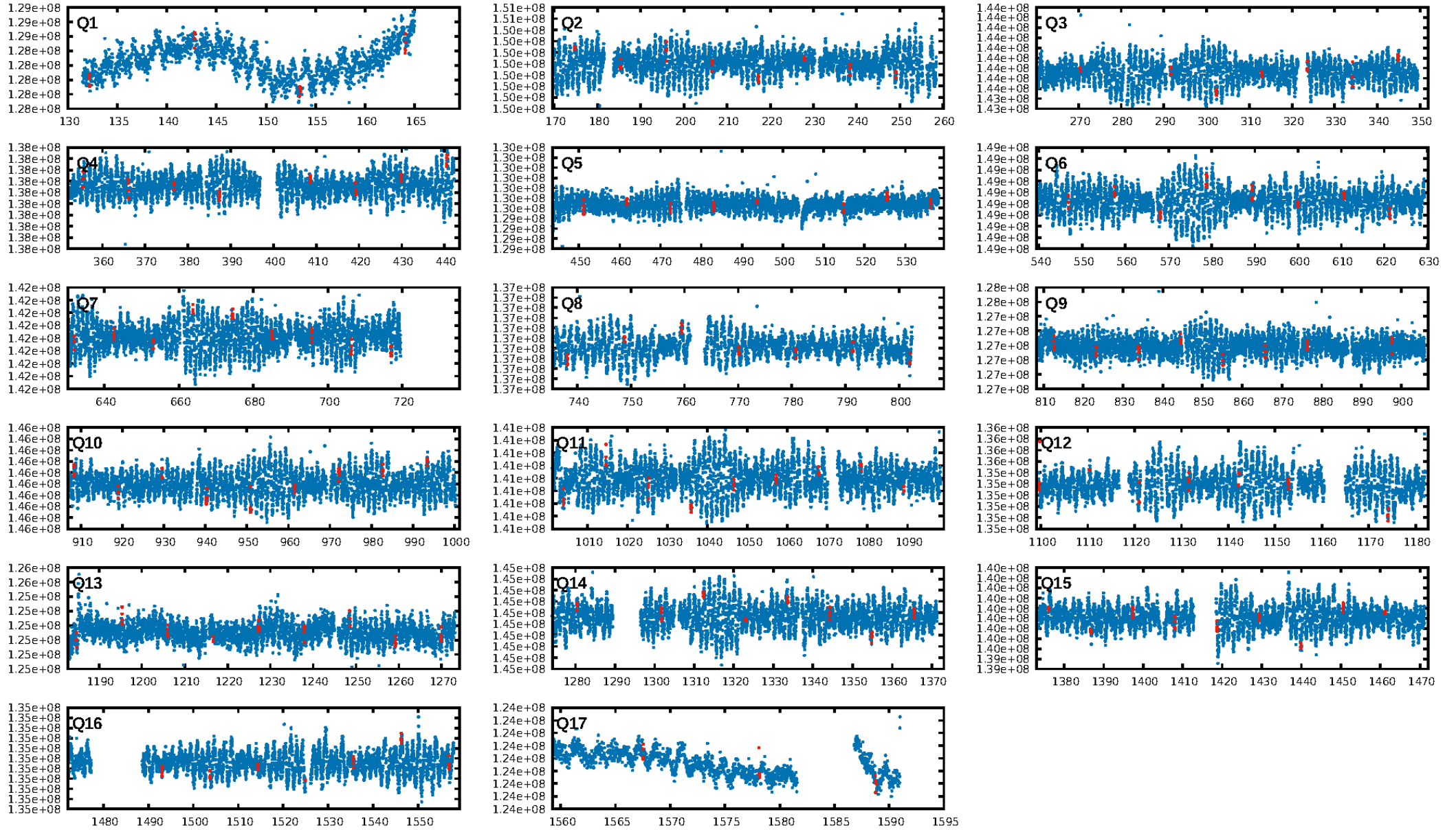
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [29.18 σ]
LongPeriod-sig: 100.0% [25.76 σ]
ModelChiSquare2-sig: 2.4%
ModelChiSquareGof-sig: 84.1%
Bootstrap-pfa: 1.43e-11
RollingBand-fgt: 1.00 [12/12]
GhostDiagnostic-chr: -0.1427
Centroid-sig: 13.2%
Centroid-so: 0.613 arcsec [2.15 σ]
OotOffset-rm: 1.648 arcsec [1.48 σ]
KicOffset-rm: 1.708 arcsec [1.55 σ]
OotOffset-st: 0/3/3/3 [9]
KicOffset-st: 0/3/3/3 [9]
DiffImageQuality-fgm: 0.33 [3/9]
DiffImageOverlap-fno: 0.88 [15/17]

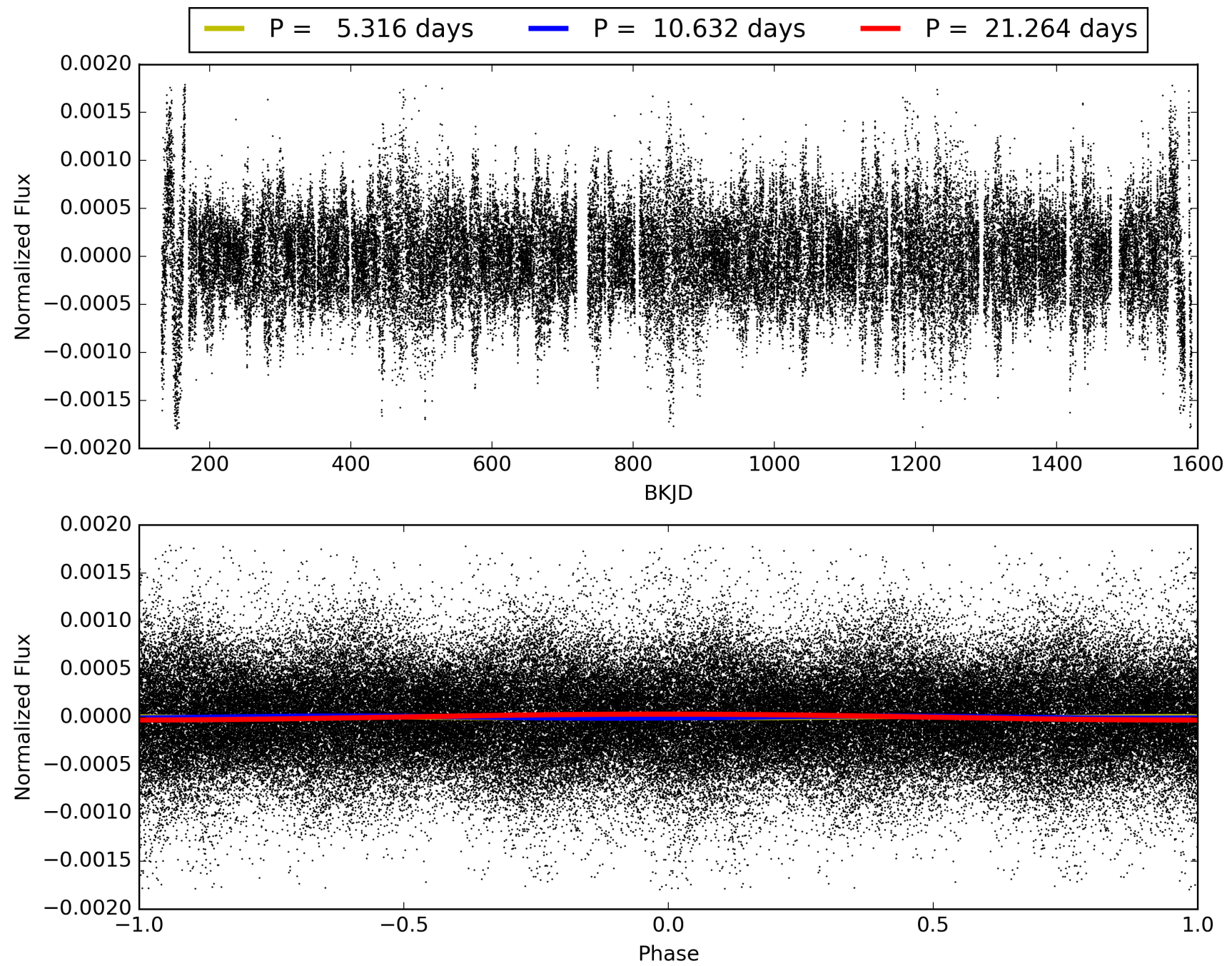
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 08:44:40 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006522735-09, PDC Light Curves

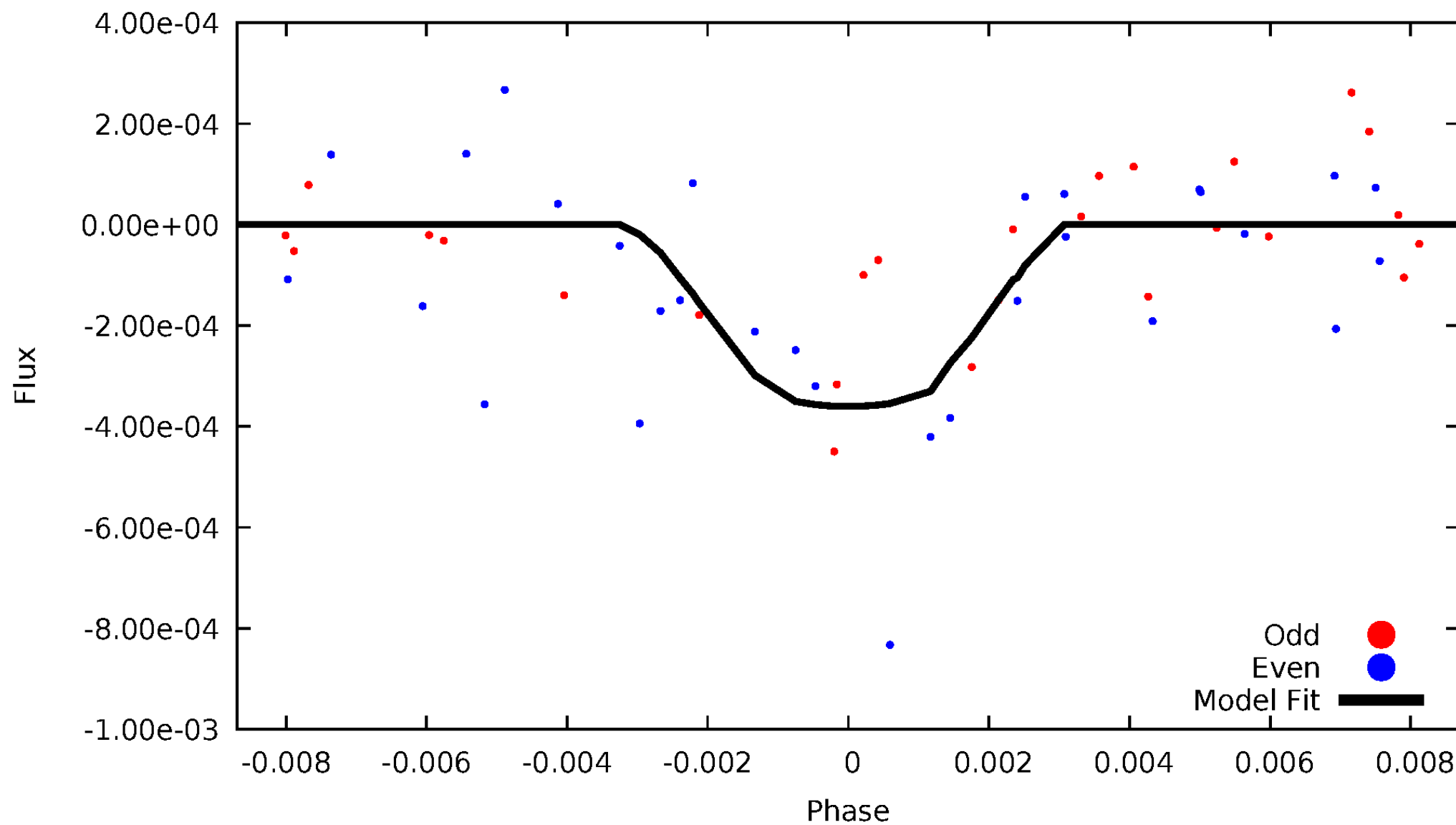


TCE 006522735-09



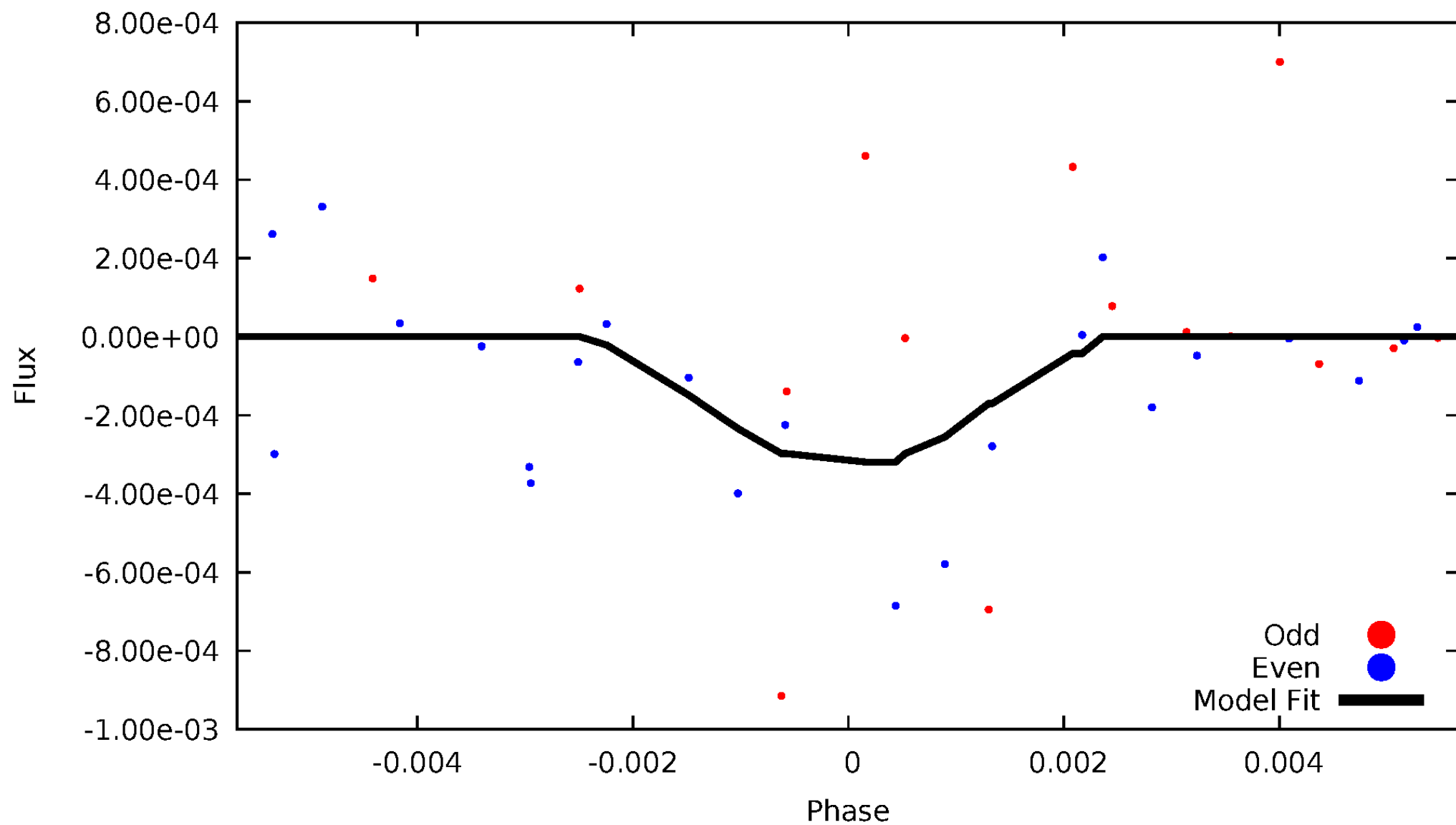
DV Odd/Even

TCE 006522735-09



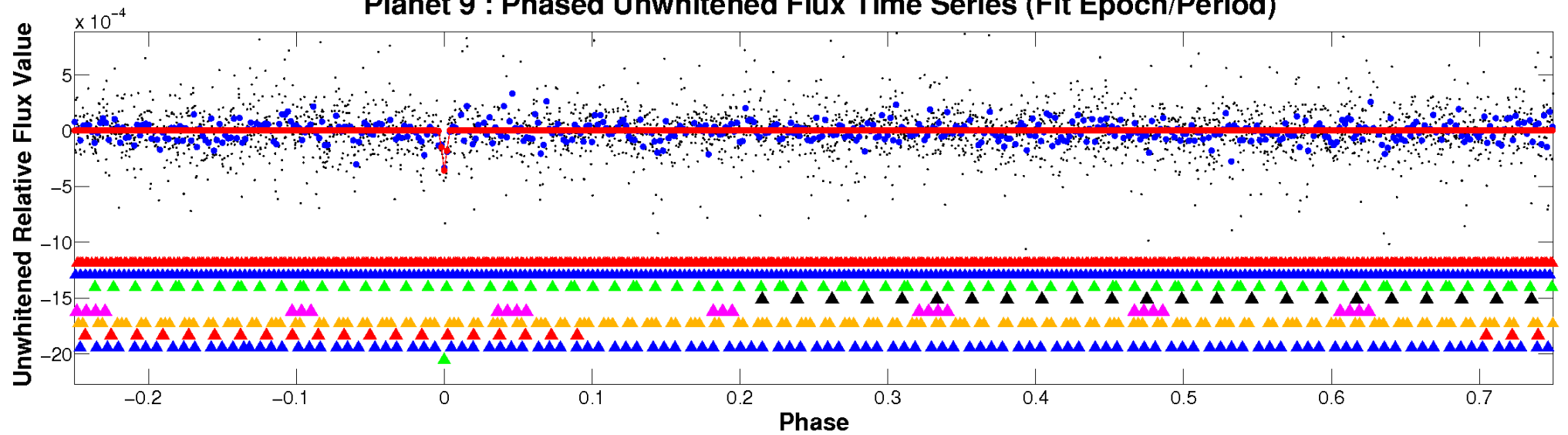
ALT Odd/Even

TCE 006522735-09

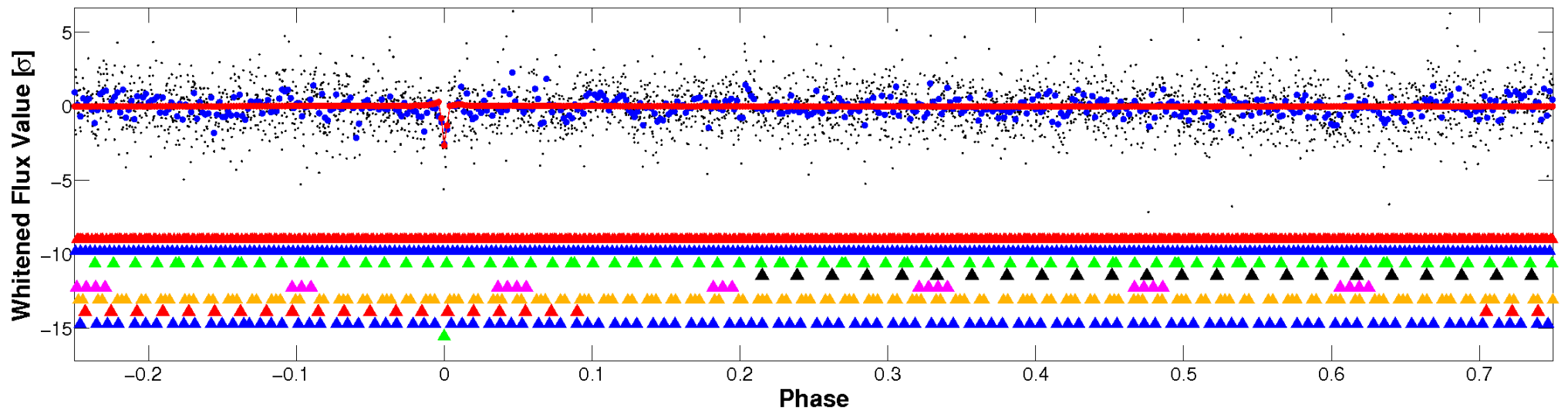


Non-Whitened Vs. Whitened Light Curve

Planet 9 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

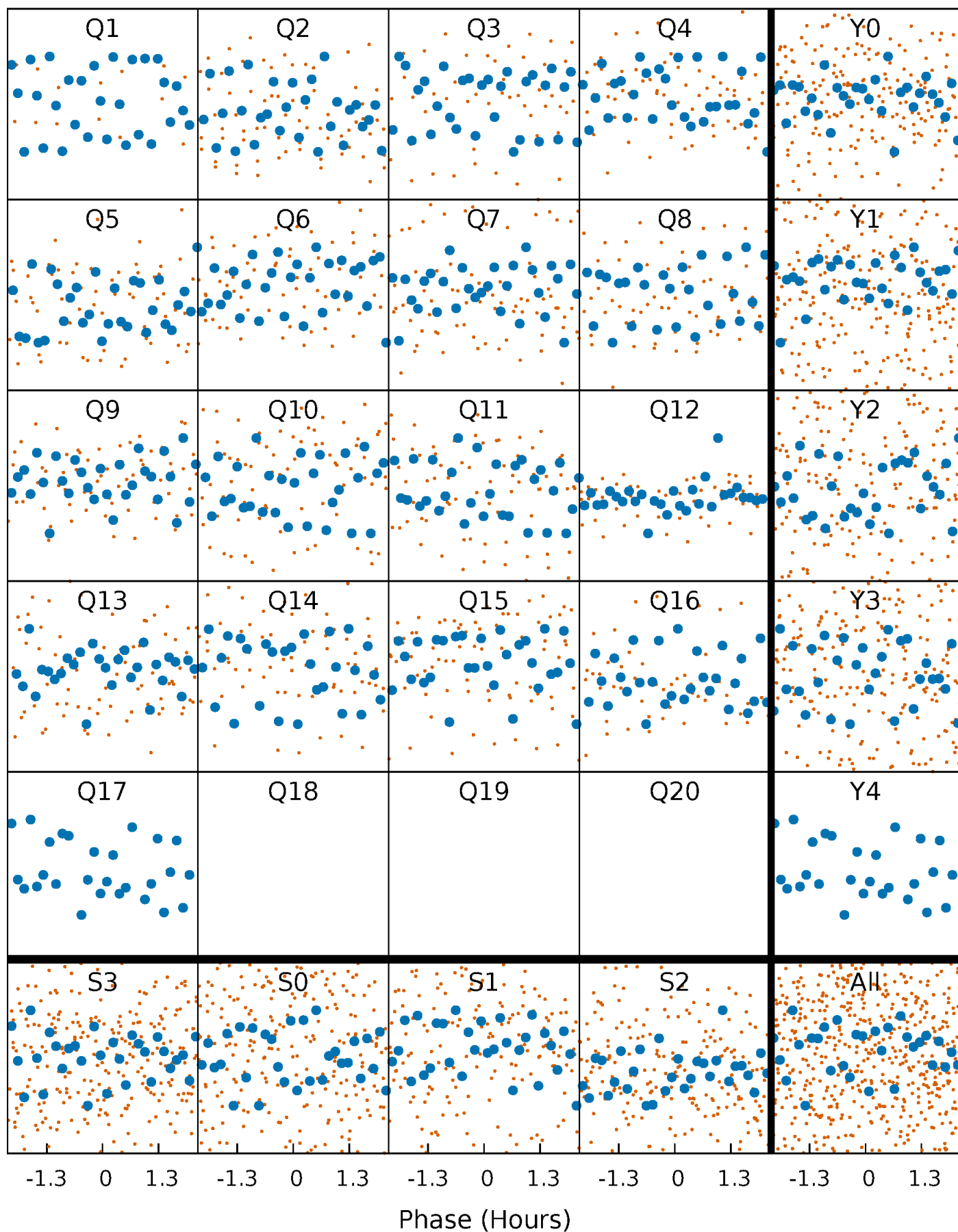


Planet 9 : Phased Whitened Flux Time Series (Fit Epoch/Period)



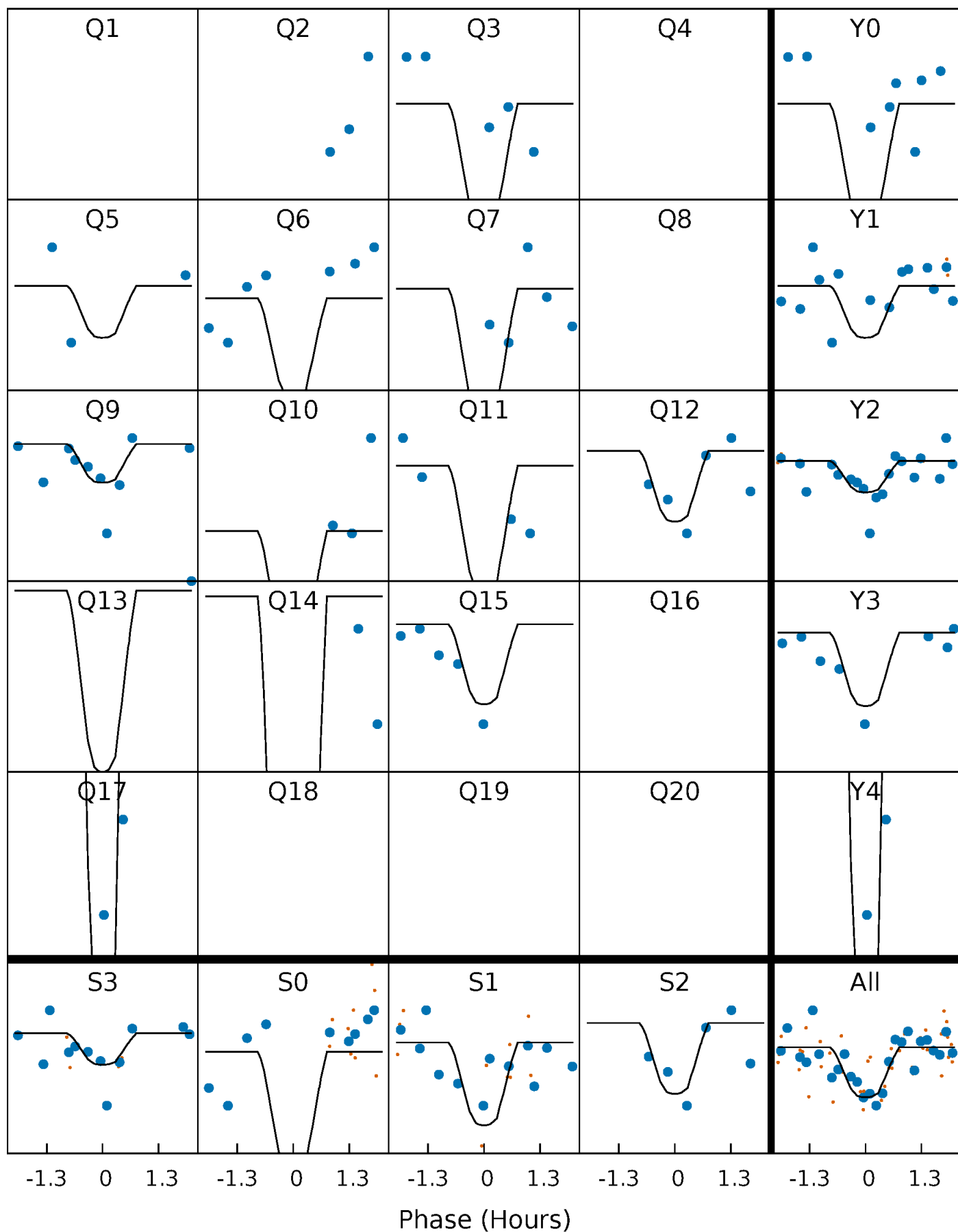
PDC Quarter-Phased Transit Curves

TCE 006522735-09 P= 10.632161 Days $T_0=132.169697$ (BKJD)



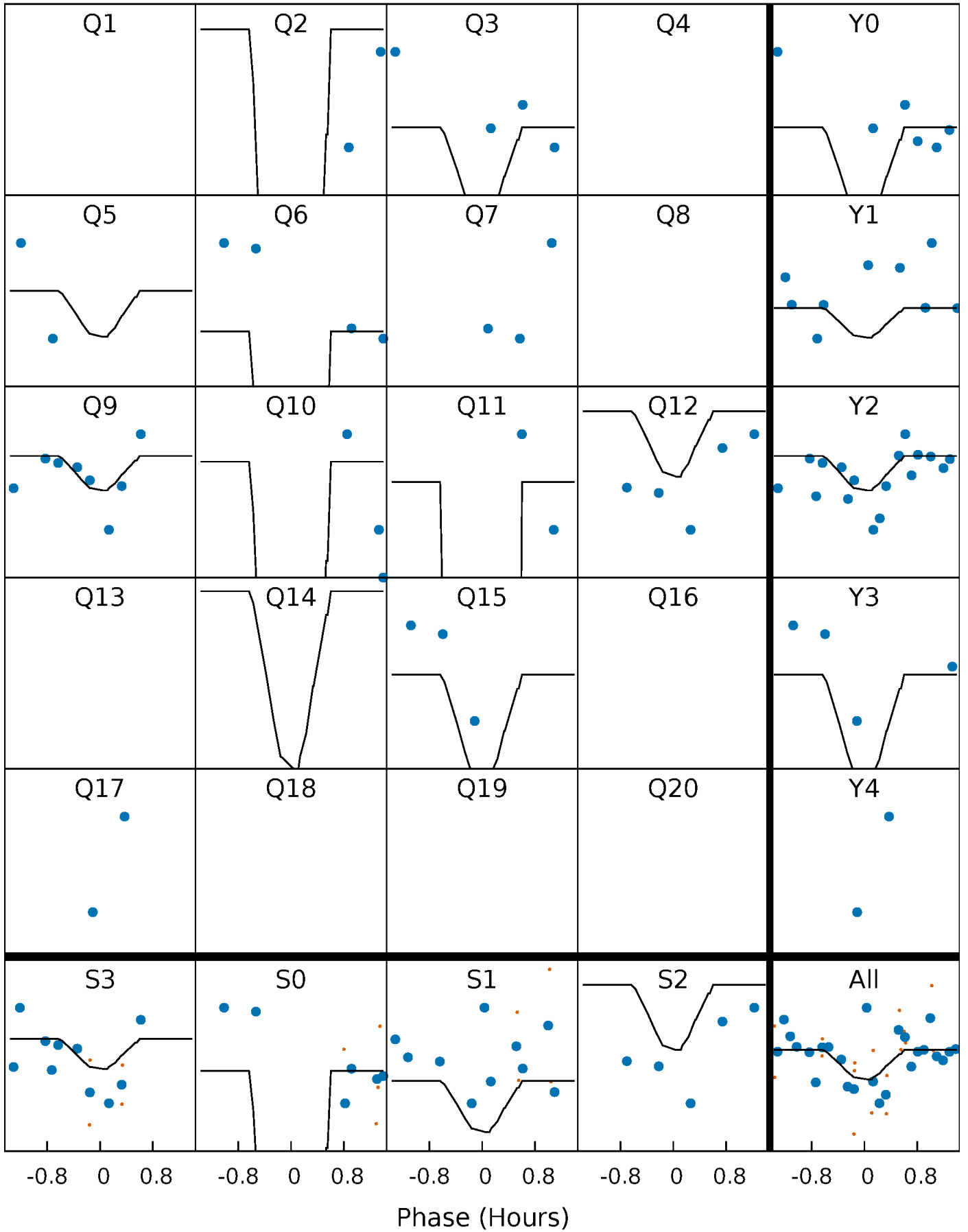
DV Quarter-Phased Transit Curves

TCE 006522735-09 P= 10.632161 Days $T_0=132.169697$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

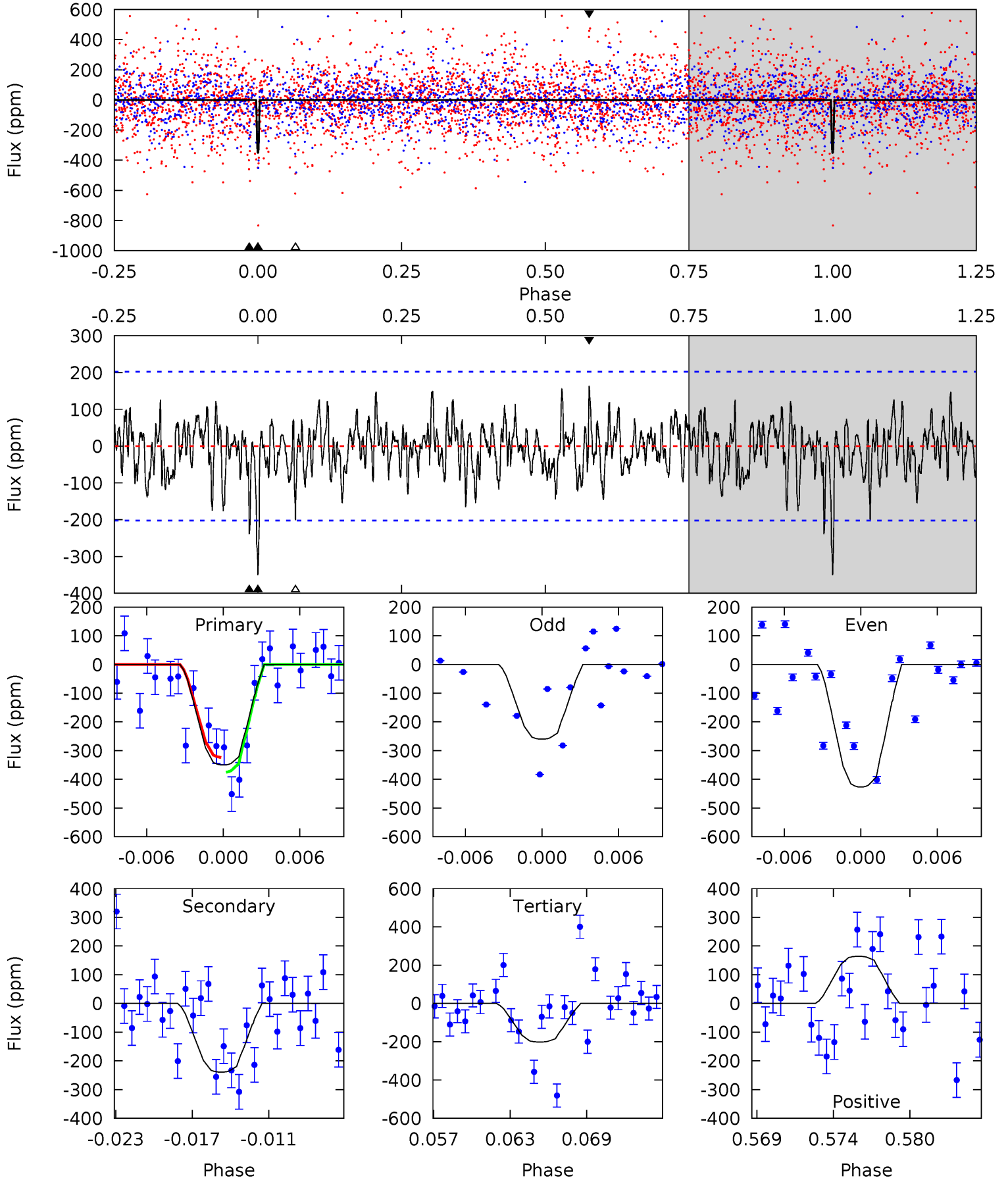
TCE 006522735-09 P= 10.632211 Days $T_0=132.167749$ (BKJD)



DV Model-Shift Uniqueness Test

006522735-09, P = 10.632161 Days, E = 121.537536 Days

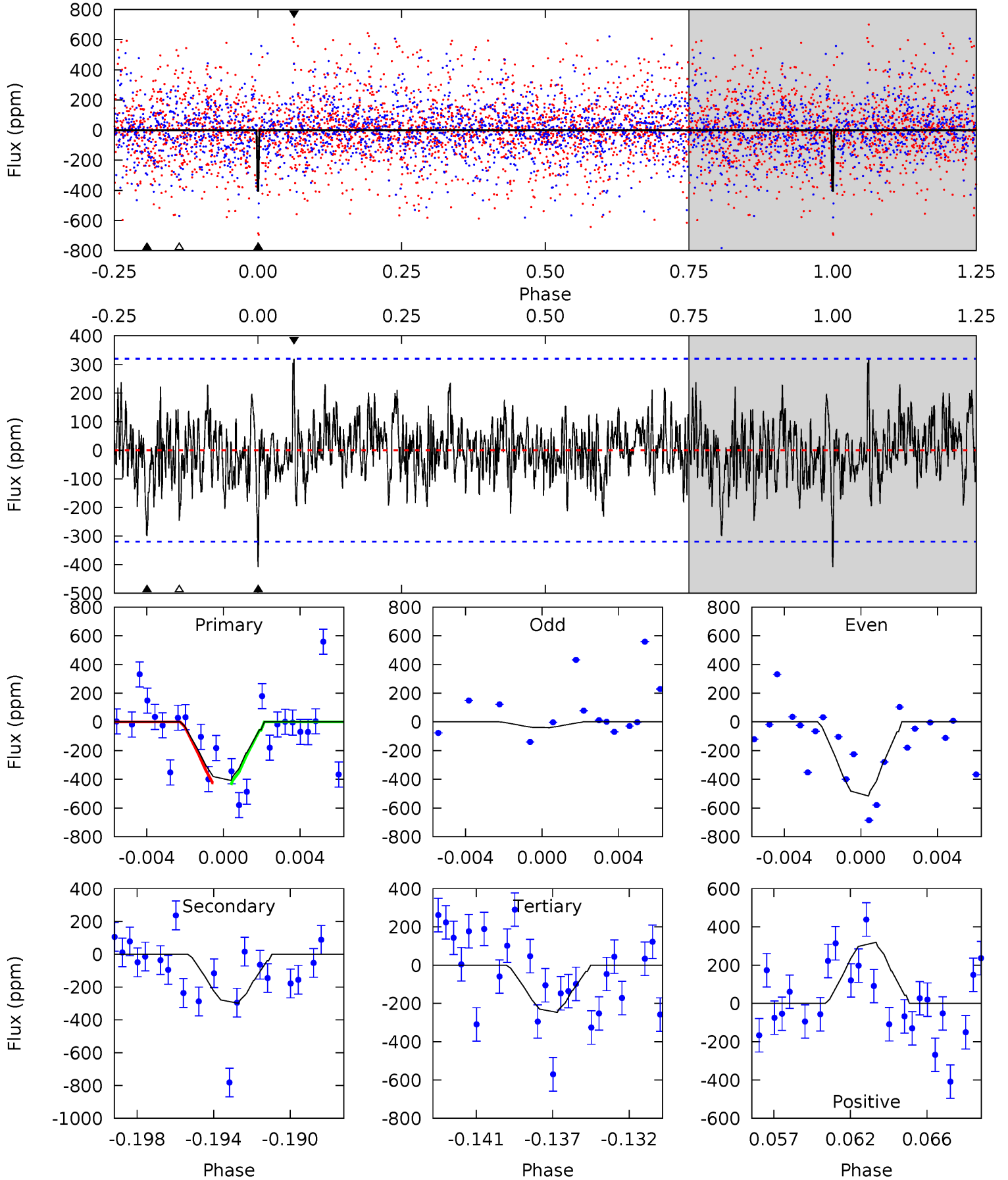
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.89	6.07	5.11	4.17	5.13	2.76	1.46	3.78	4.72	0.96	1.90	2.13	0.93	0.32	0.66



Alt Model-Shift Uniqueness Test

006522735-09, P = 10.632211 Days, E = 121.535538 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.61	4.84	3.99	5.18	5.18	2.85	1.32	2.62	1.44	0.85	-0.34	3.51	0.70	0.44	0.12



Stellar Parameters For KIC 006522735

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7170^{+199}_{-274}	$4.101^{+0.180}_{-0.180}$	$-0.300^{+0.250}_{-0.350}$	$1.741^{+0.522}_{-0.475}$	$1.397^{+0.205}_{-0.228}$	$0.373^{+0.384}_{-0.177}$
	+3%/-4%	+4%/-4%	+83%/-117%	+30%/-27%	+15%/-16%	+103%/-47%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 006522735-09 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-239 ± 39	$5.32^{+4.88}_{-3.48}$	1786^{+142}_{-120}	5307^{+4335}_{-1213}	51^{+397}_{-37}
Alt.	-299 ± 62	$5.12^{+5.23}_{-3.22}$	1793^{+146}_{-139}	5611^{+4117}_{-1413}	68^{+418}_{-51}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

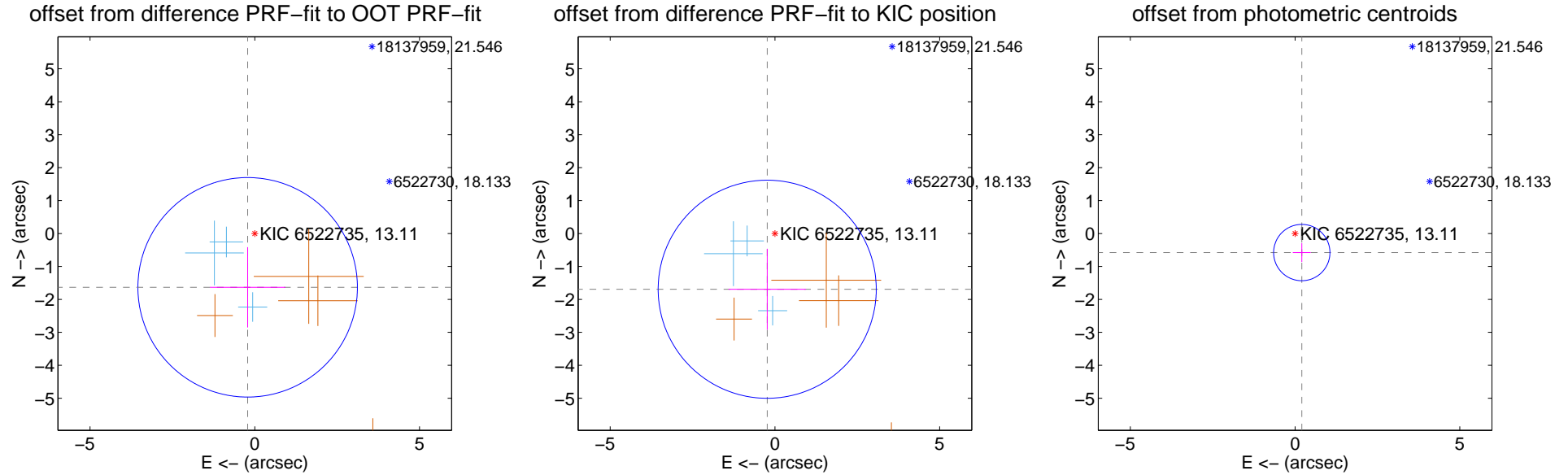
DV Centroid Data

Supplemental centroid analysis for 006522735-09. Kepler magnitude: 13.11. Transit SNR 8.07

There are 3 quarters with good PRF difference image offsets

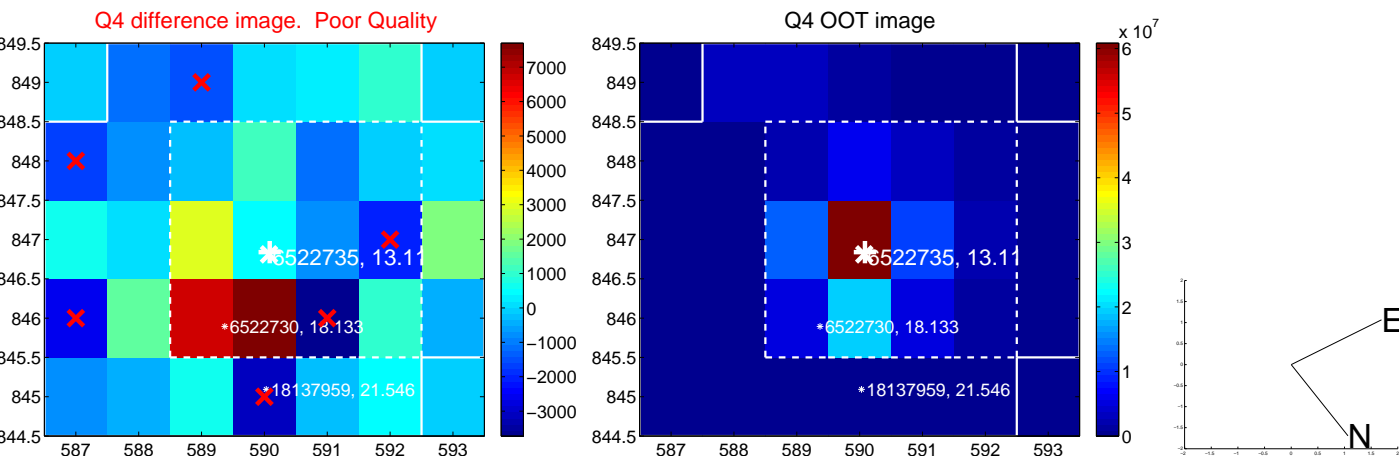
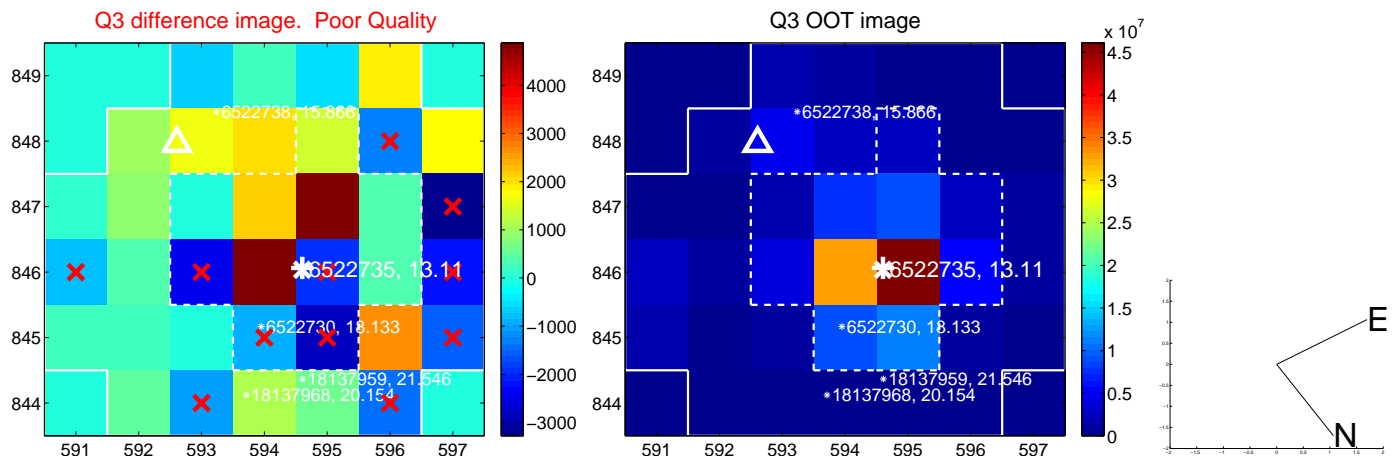
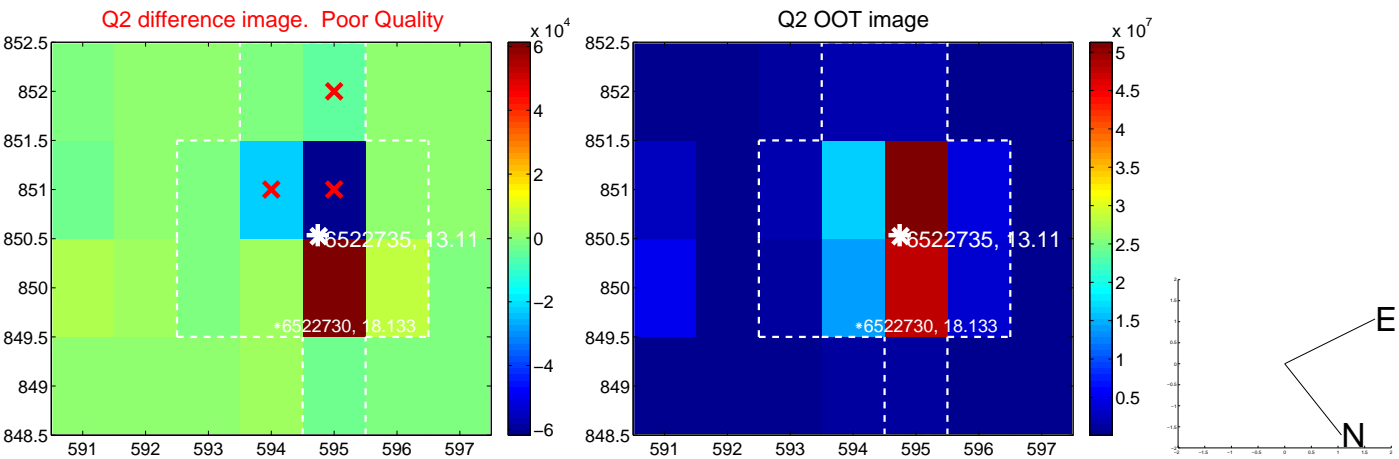
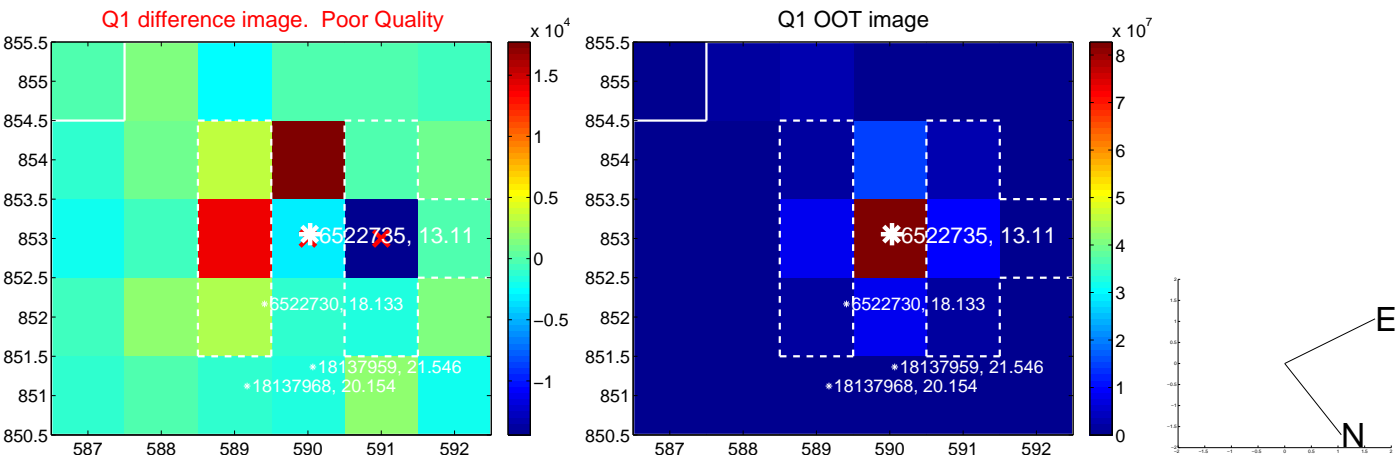
The direct PRF centroid is offset from the target star catalog position by about 0.02 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.648 ± 1.111	1.48	0.216 ± 1.142	-1.633 ± 1.219
PRF-fit source offset from KIC position	1.708 ± 1.104	1.55	0.234 ± 1.176	-1.692 ± 1.229
photometric centroid source offset	0.61 ± 0.28	2.15	-0.20 ± 0.27	-0.58 ± 0.29

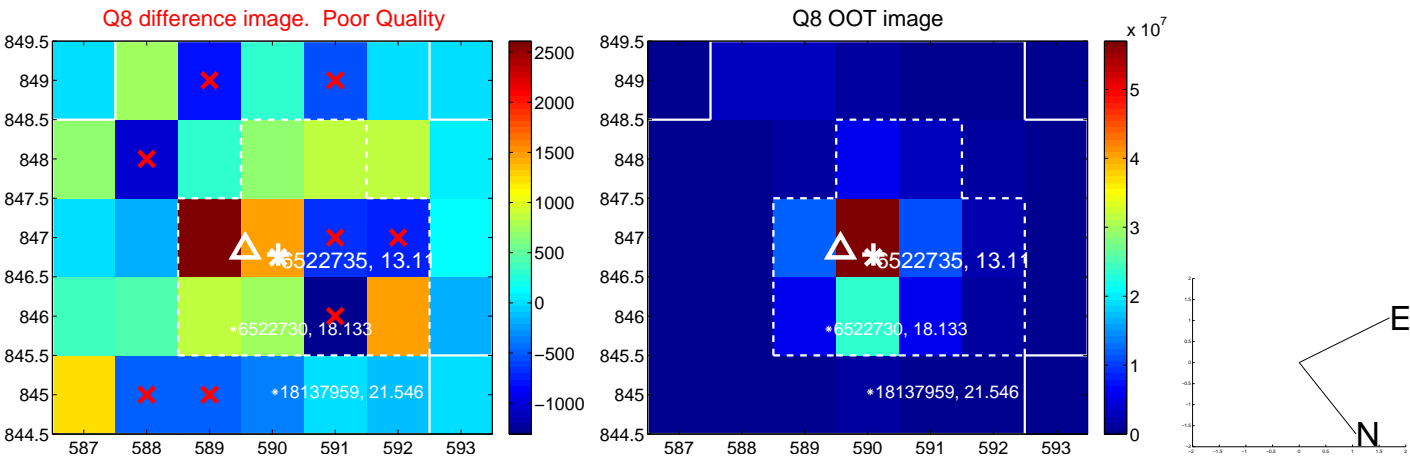
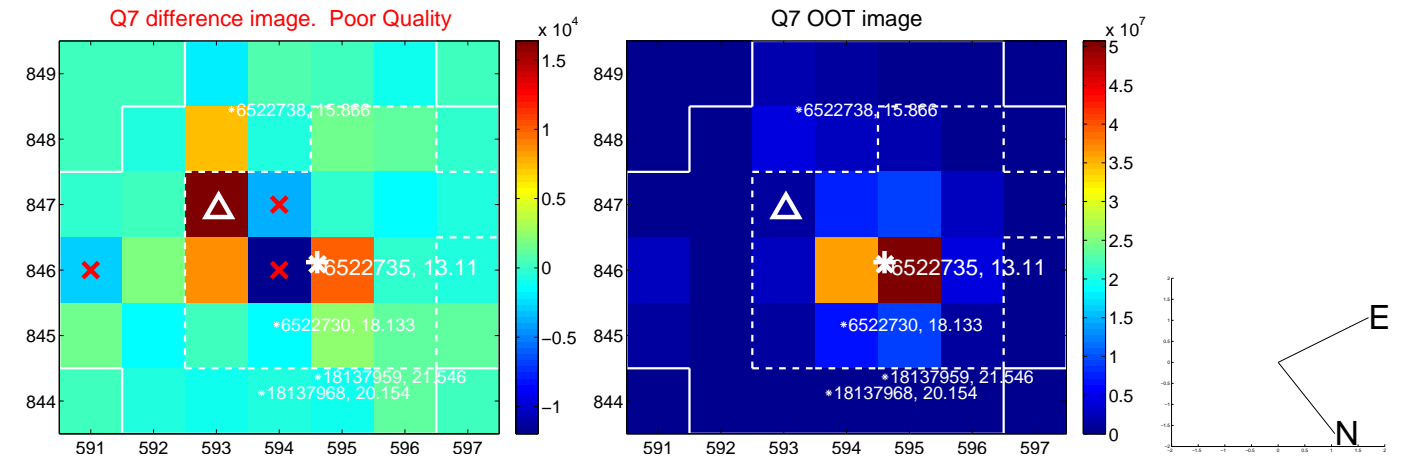
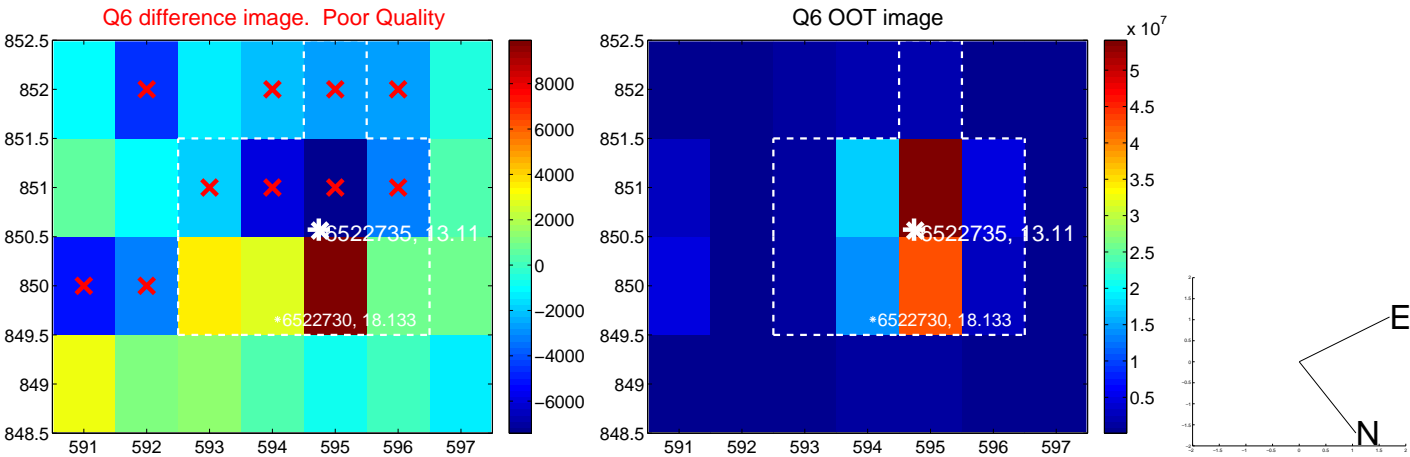
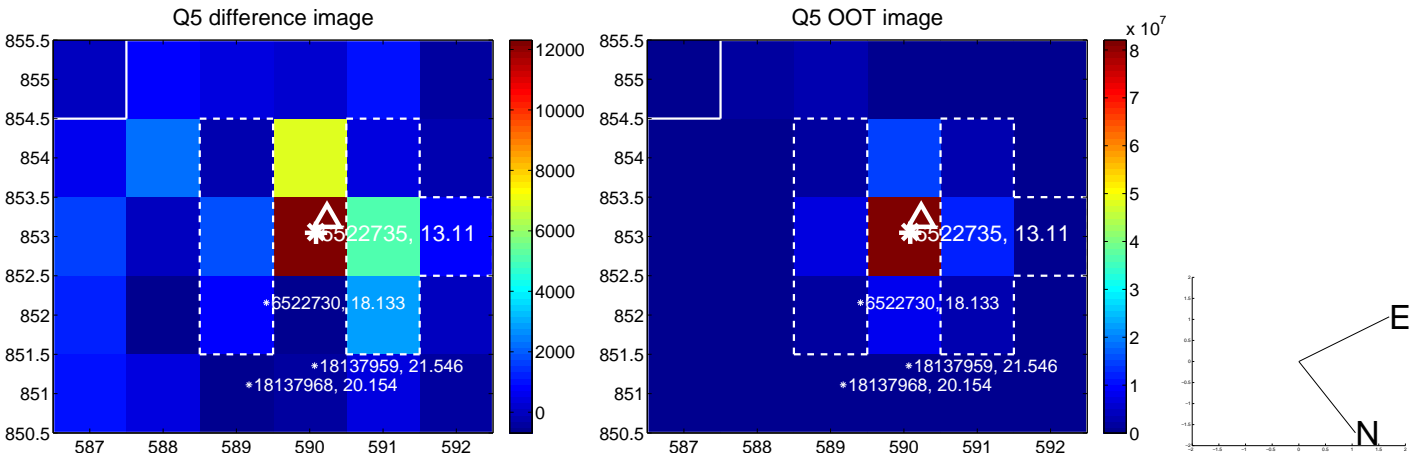


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

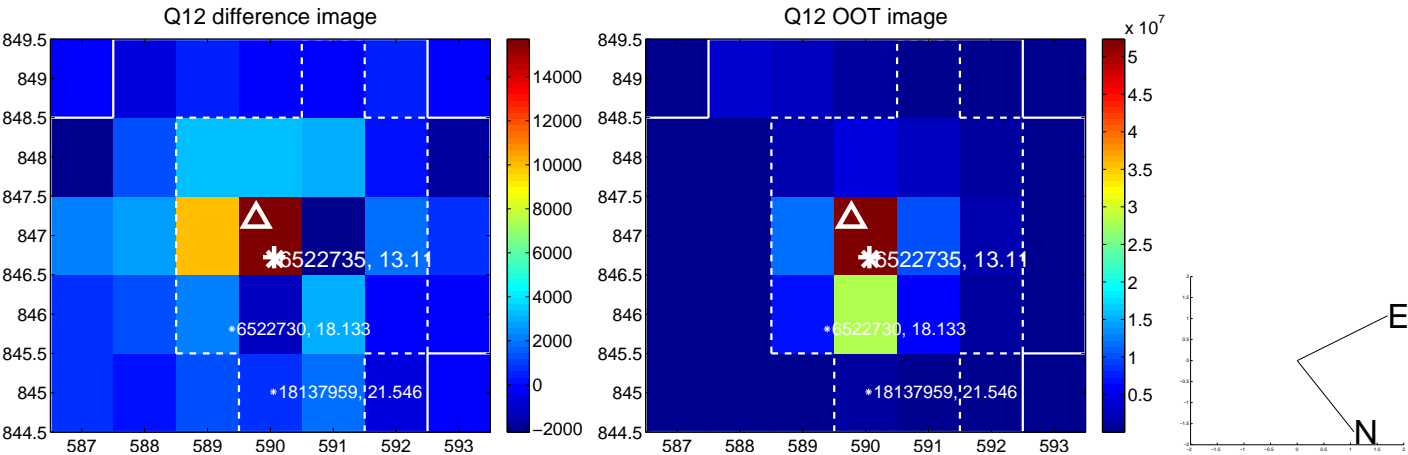
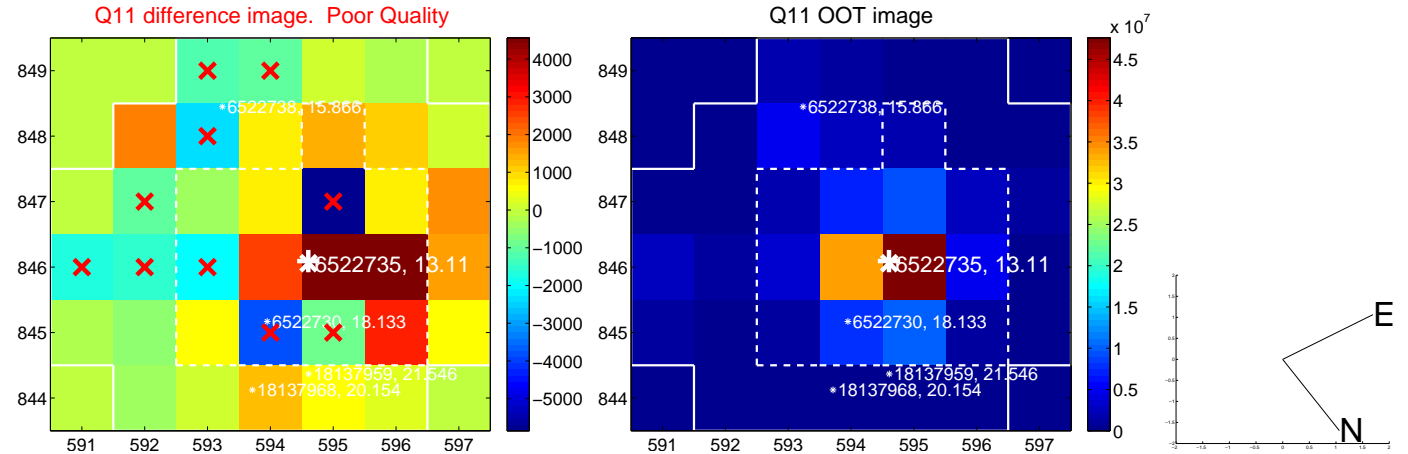
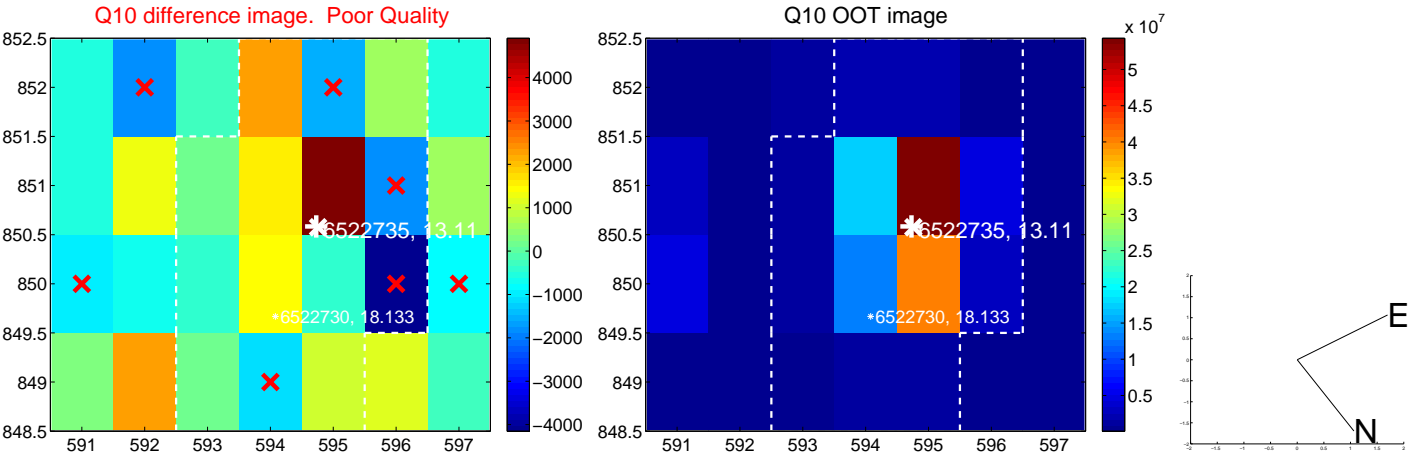
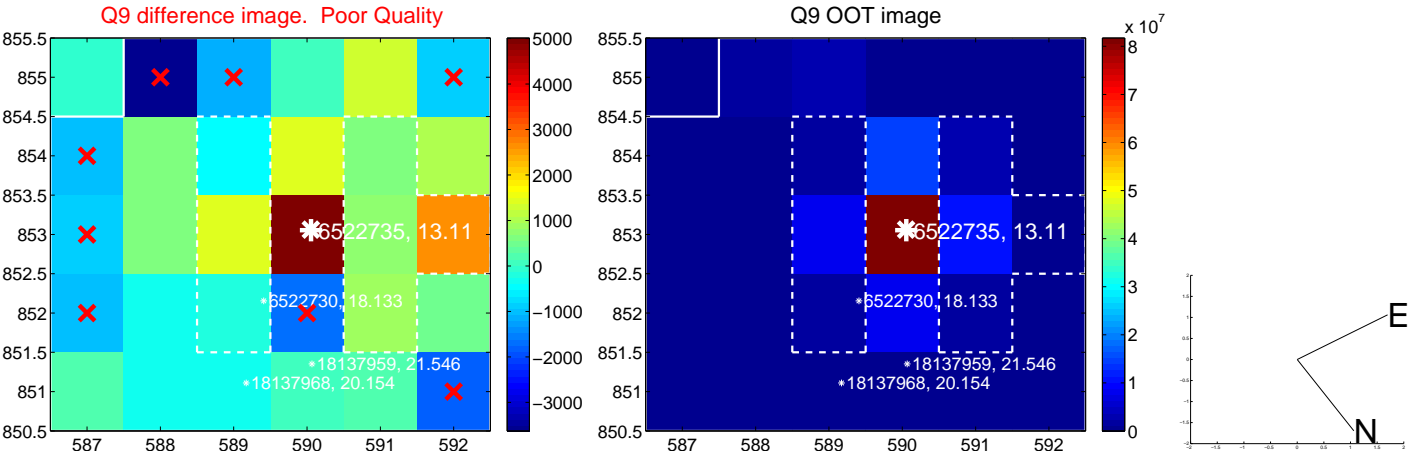
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



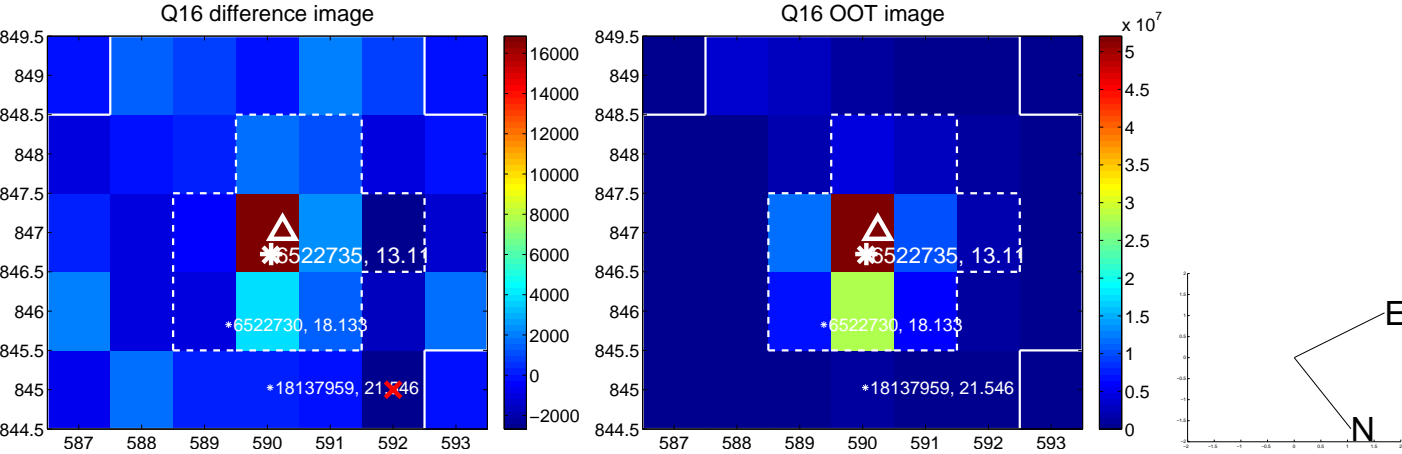
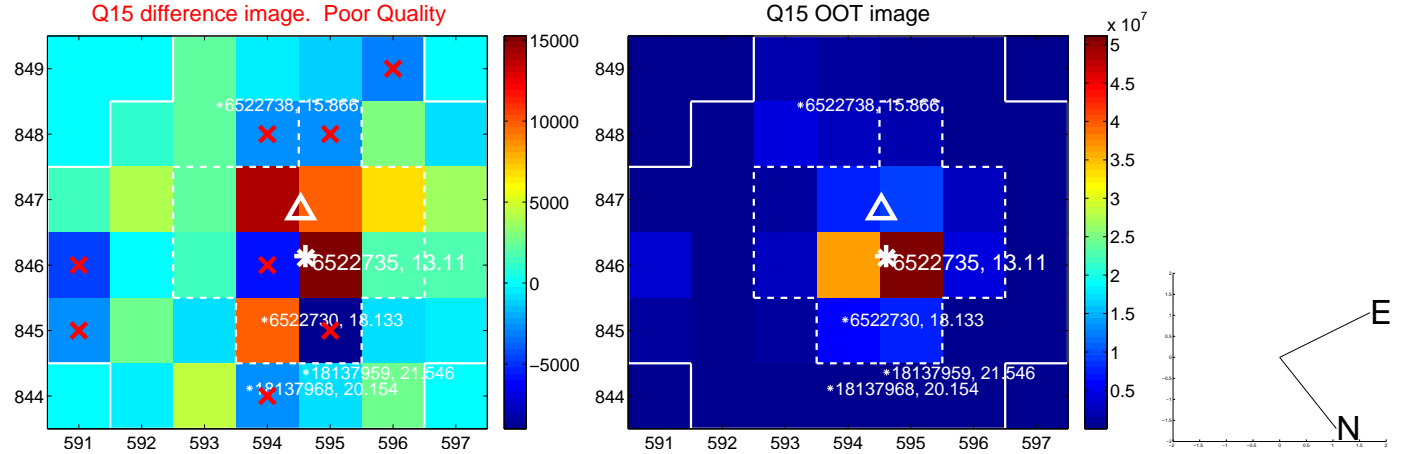
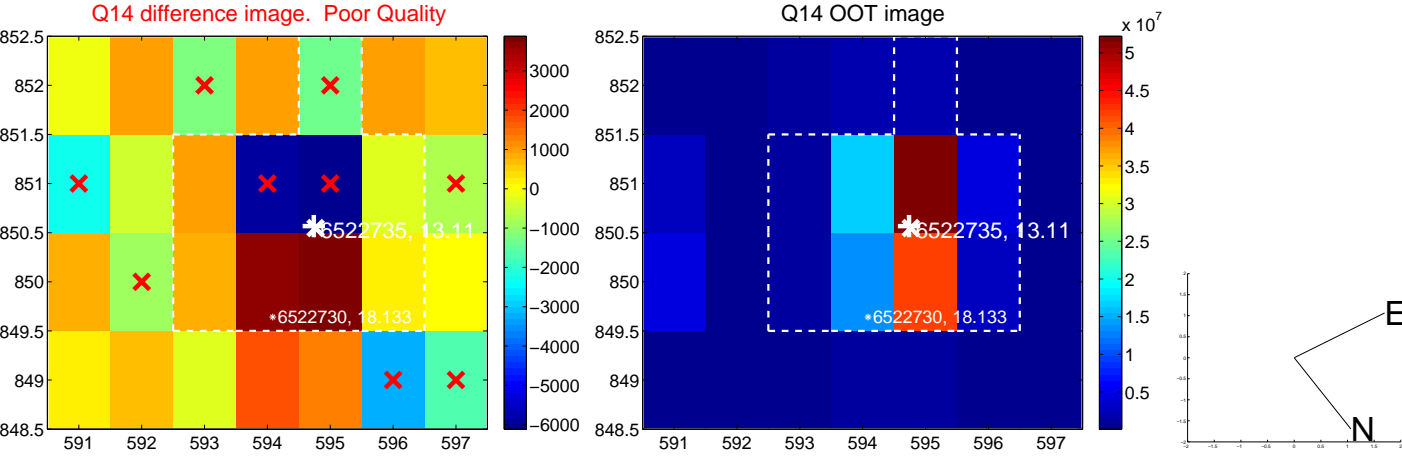
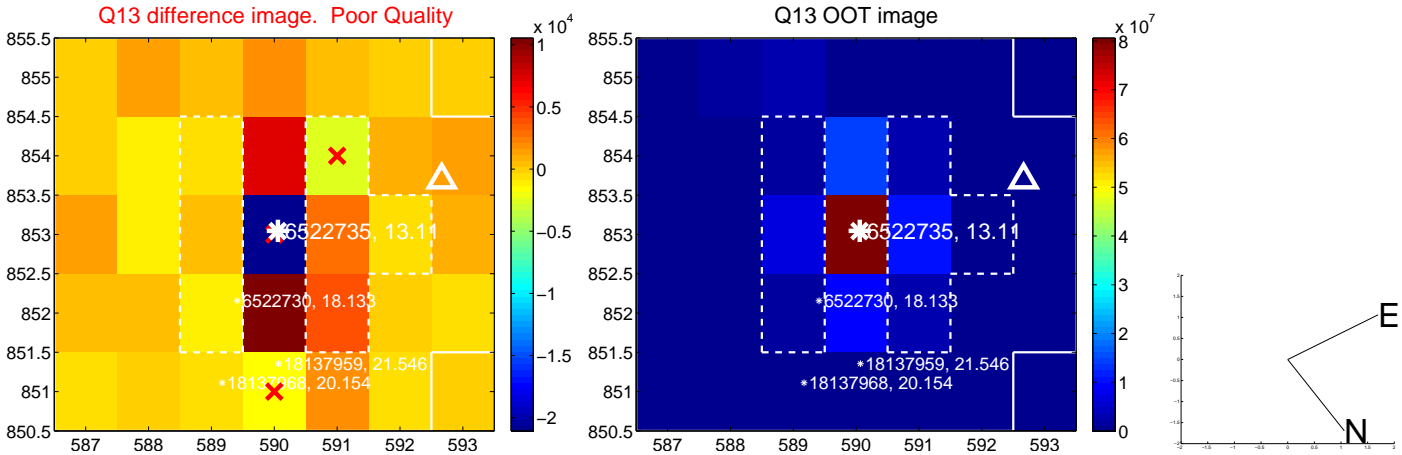
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



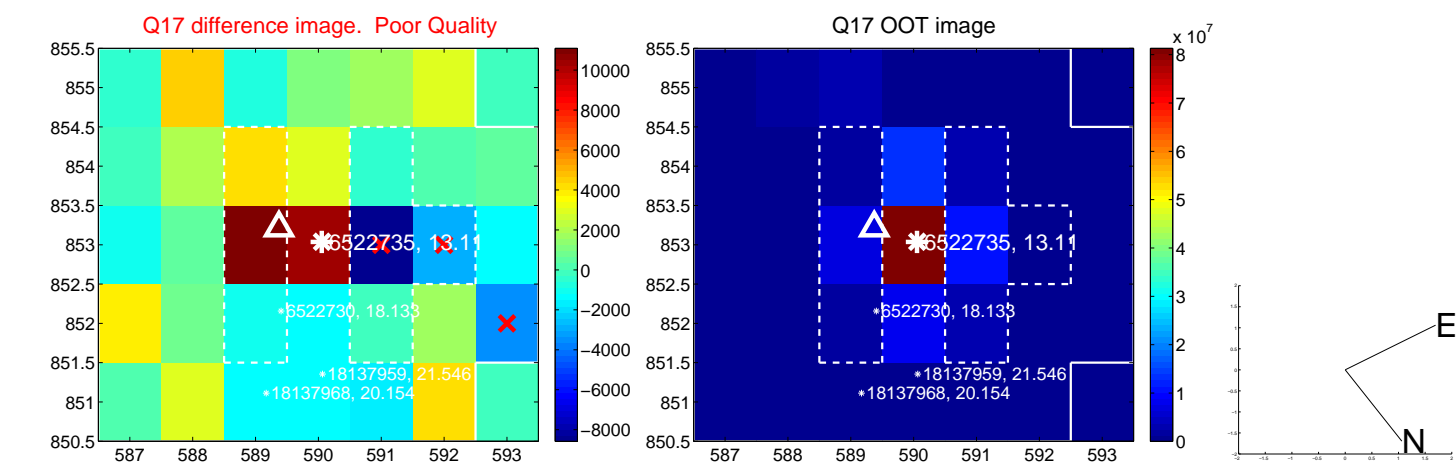
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



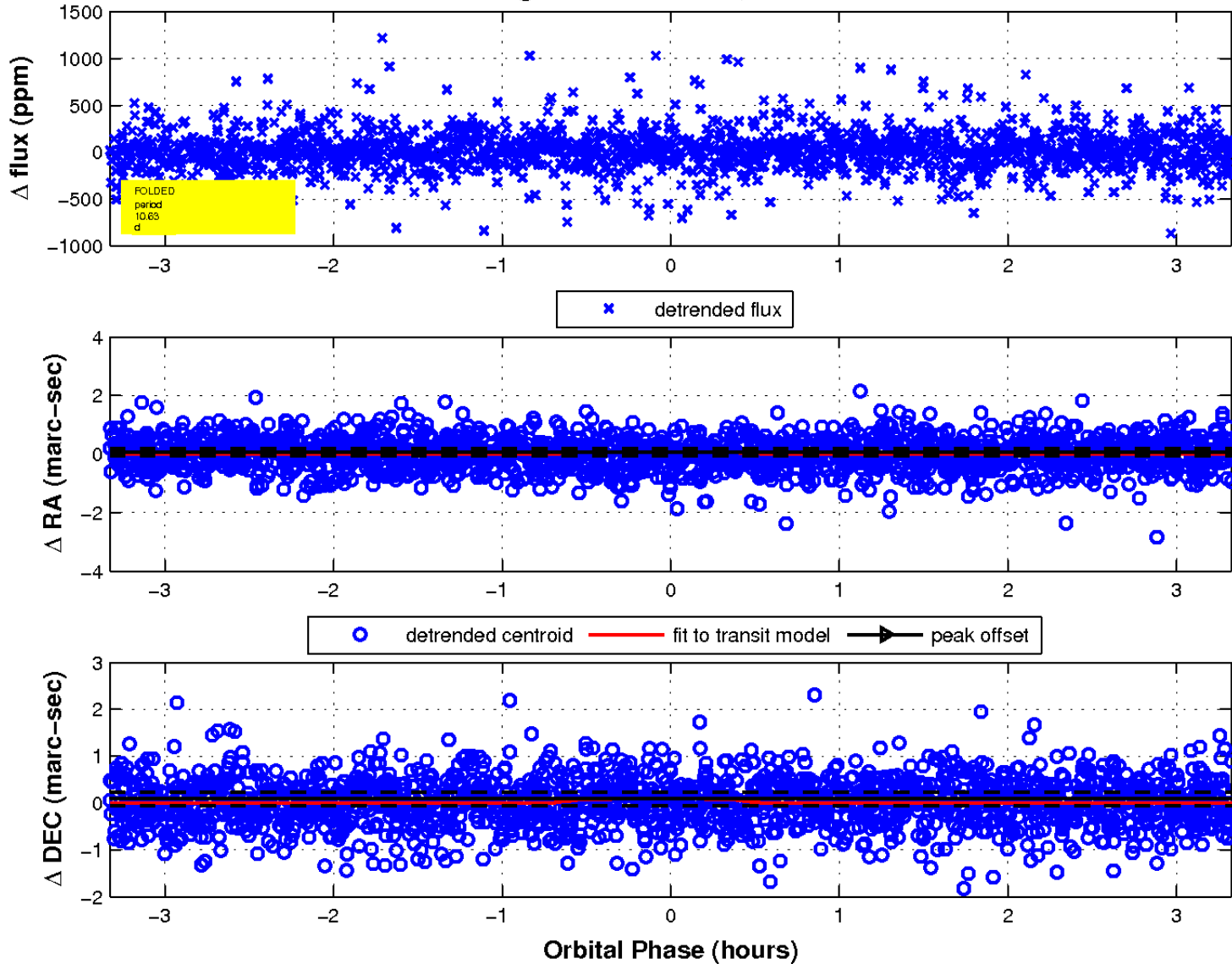
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; Δ : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

