

KIC 005212696

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})
005212696-01	OBS	No	0.653332	131.914297	65.6	1.353	10.2	11.1	1.84	7696	1.78	34752.64
005212696-02	OBS	No	0.653320	131.763094	66.8	1.399	10.3	11.6	1.84	7696	1.75	34753.47
005212696-03	OBS	No	0.653318	132.089907	60.4	1.599	9.5	11.4	1.84	7696	1.66	34753.64
005212696-04	OBS	No	25.726809	134.227936	496.0	1.705	7.9	6.8	1.84	7696	4.76	259.41
005212696-05	OBS	No	34.711445	165.876923	722.0	2.306	7.8	7.1	1.84	7696	7.88	174.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005212696-01	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—HALO_GHOST
005212696-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD
005212696-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—SAME_NTL_PERIOD
005212696-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
005212696-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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

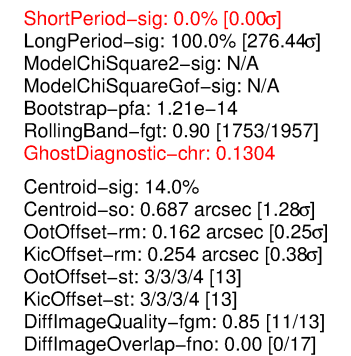
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

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

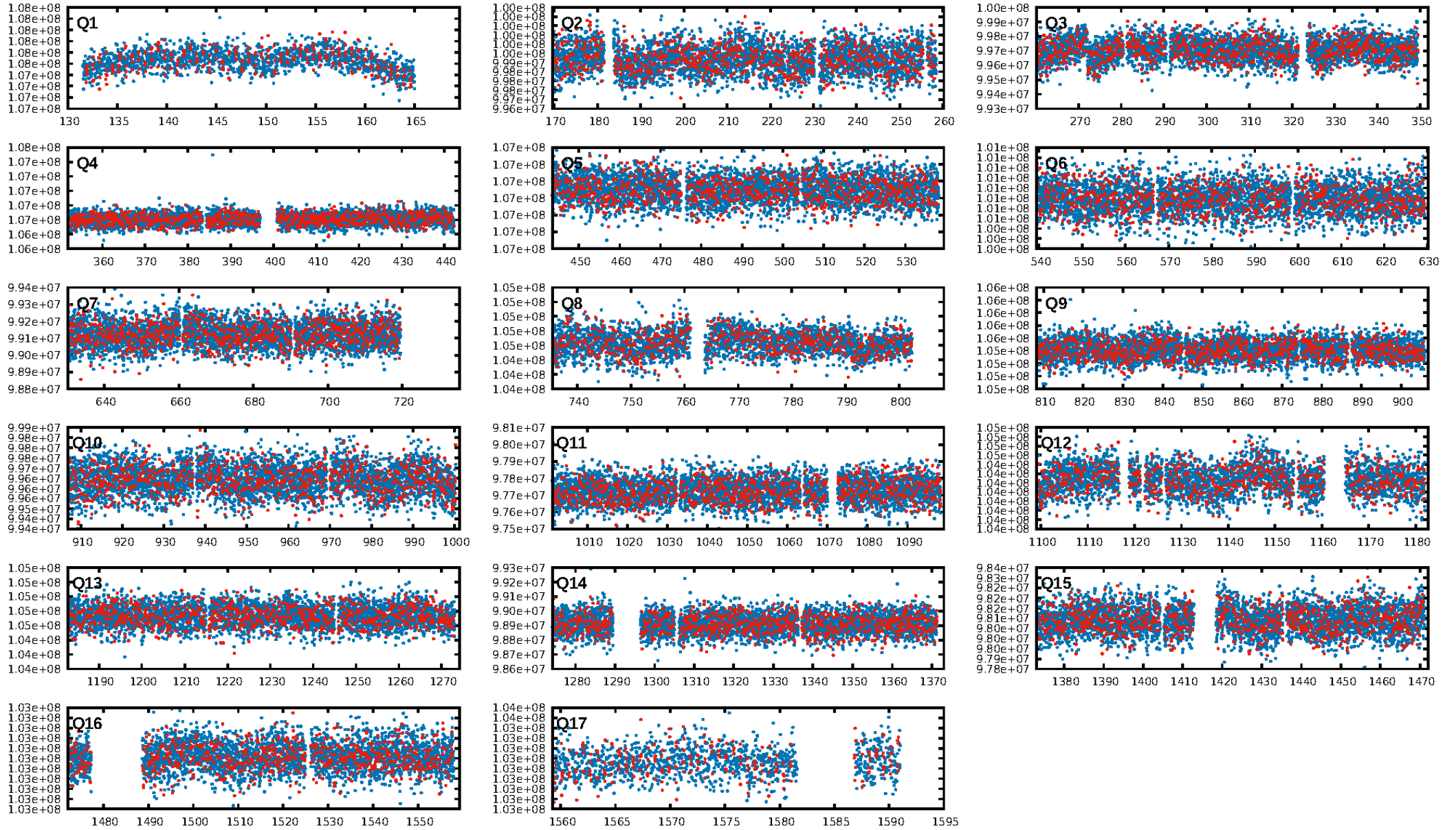
Ephemeris Match Information For 005212696-01

No Significant Match Found

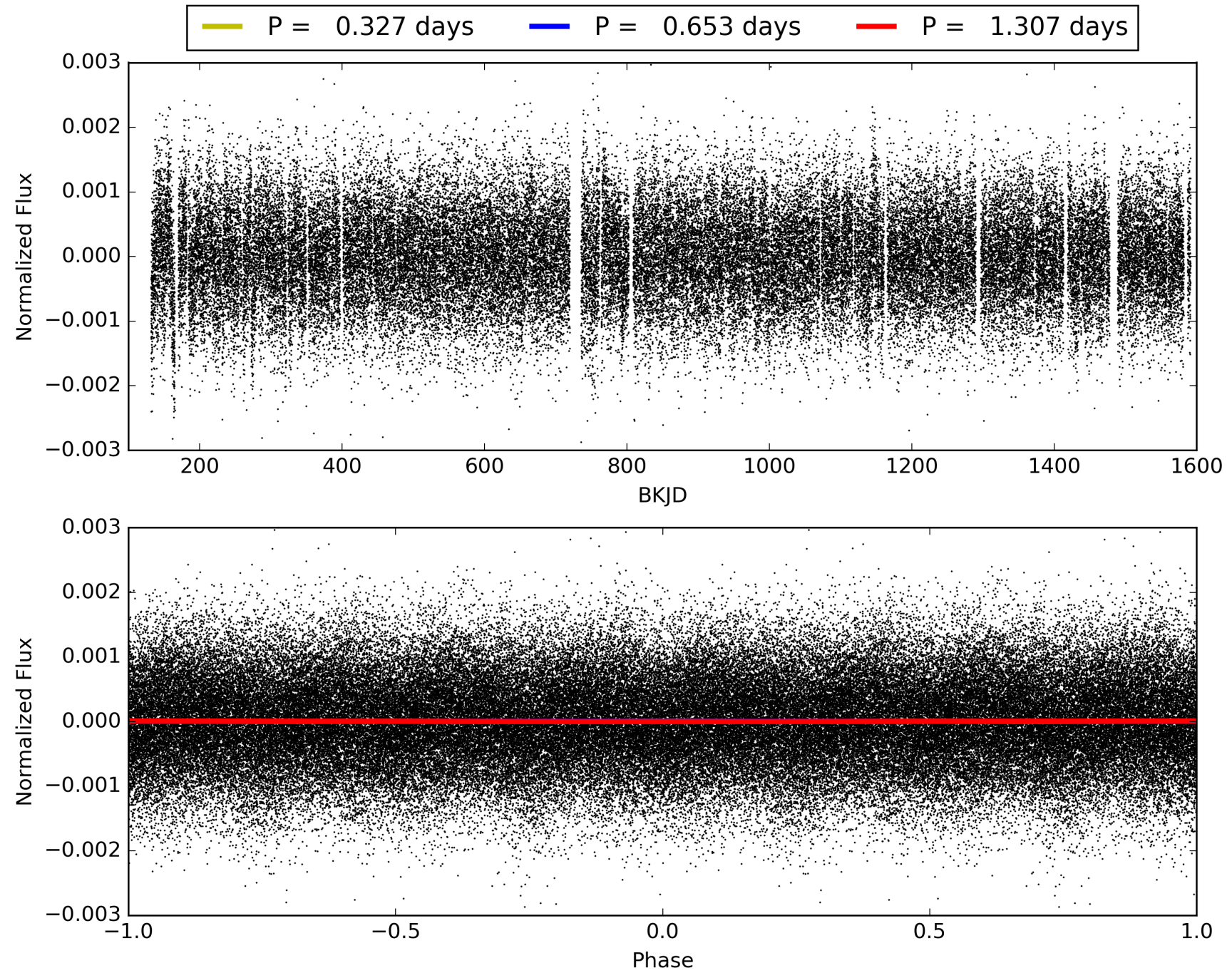
KIC: 5212696 Candidate: 1 of 5 Period: 0.653 d



TCE 005212696-01, PDC Light Curves

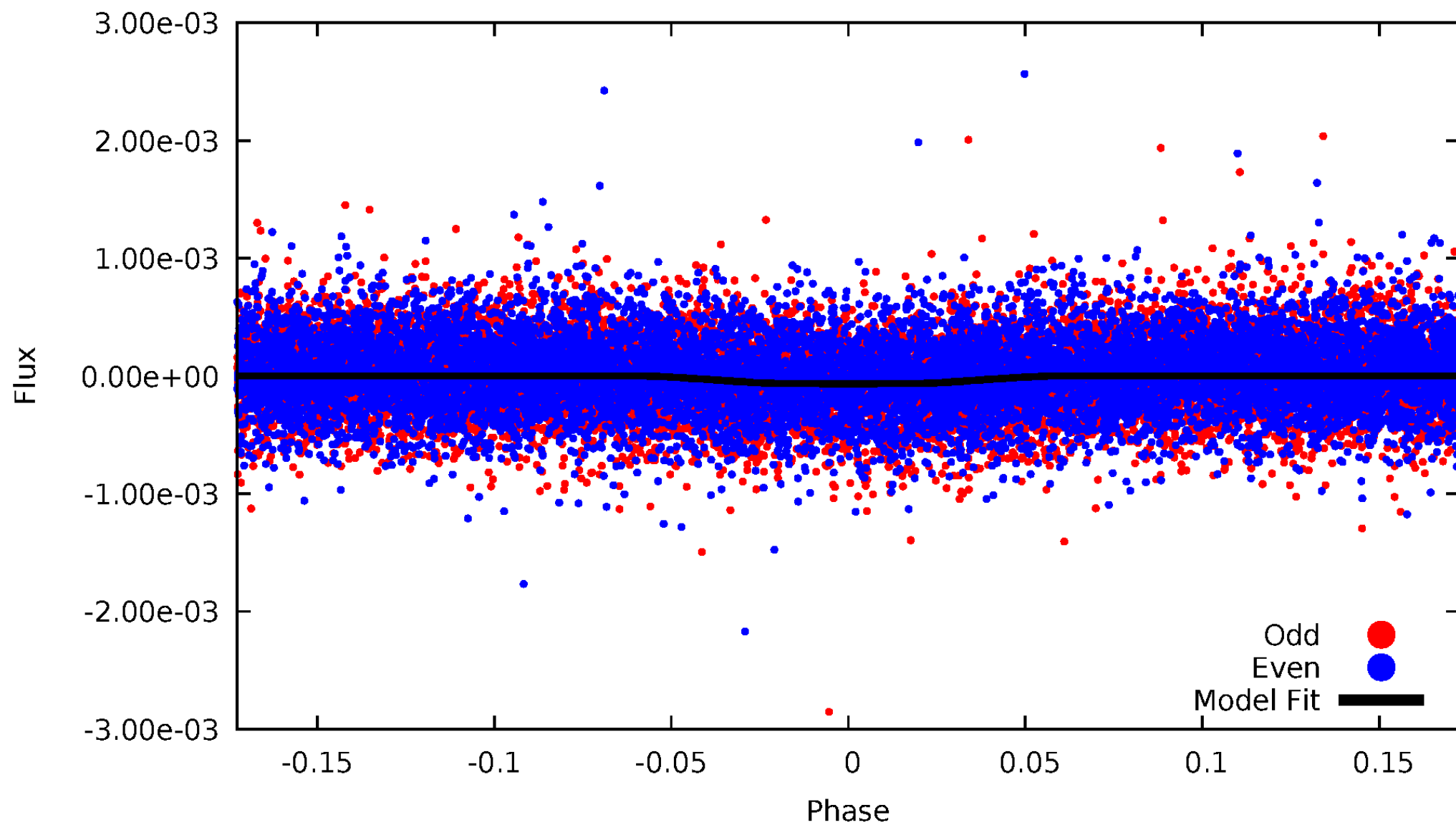


TCE 005212696-01



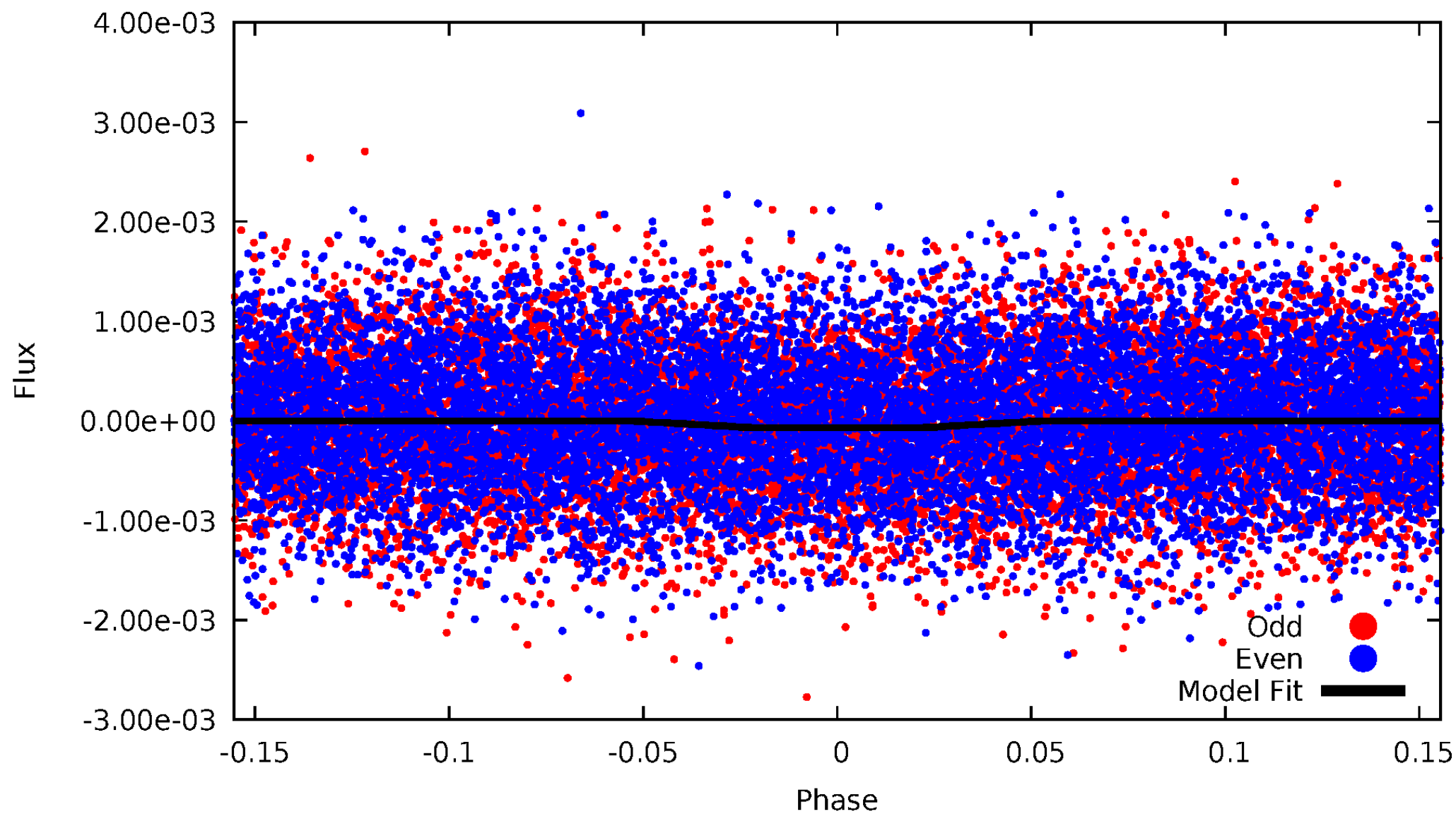
DV Odd/Even

TCE 005212696-01



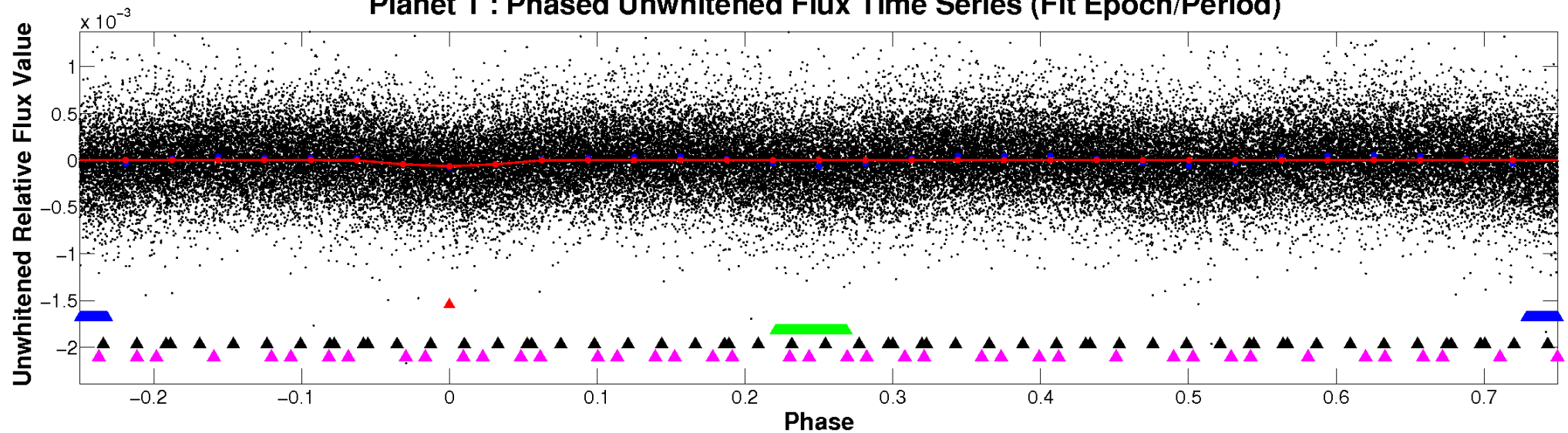
ALT Odd/Even

TCE 005212696-01

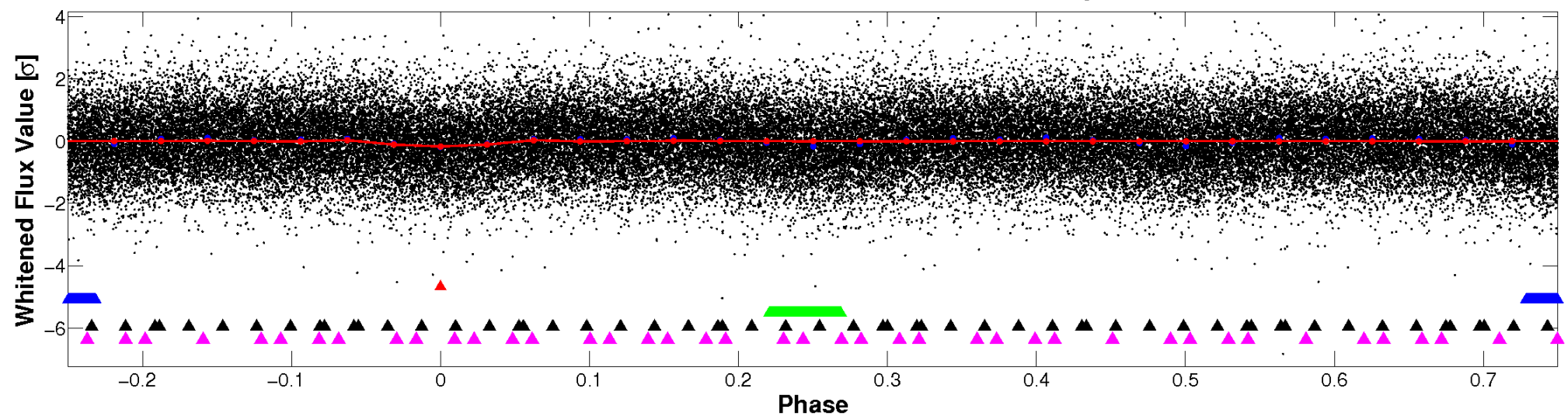


Non-Whitened Vs. Whitened Light Curve

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

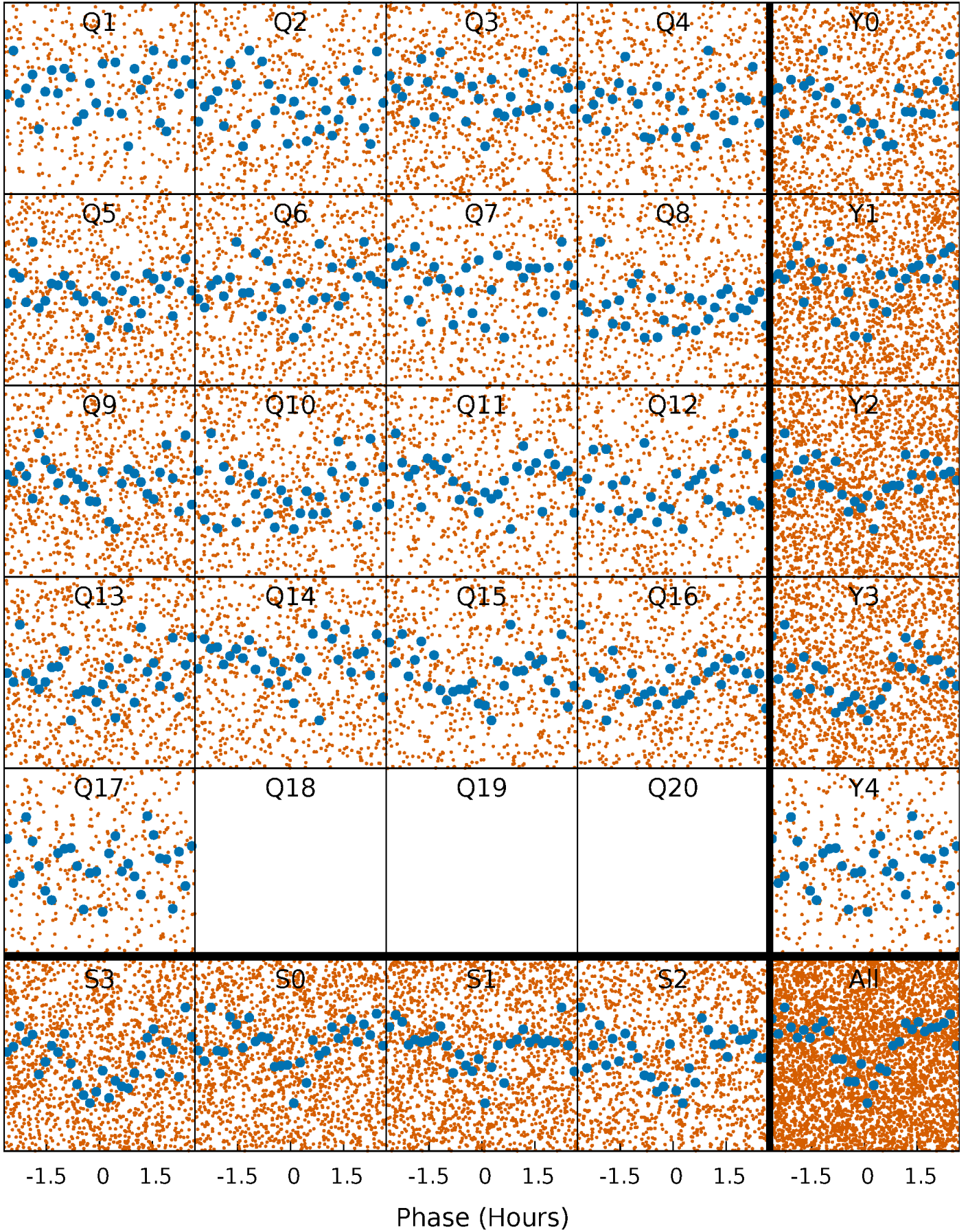


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



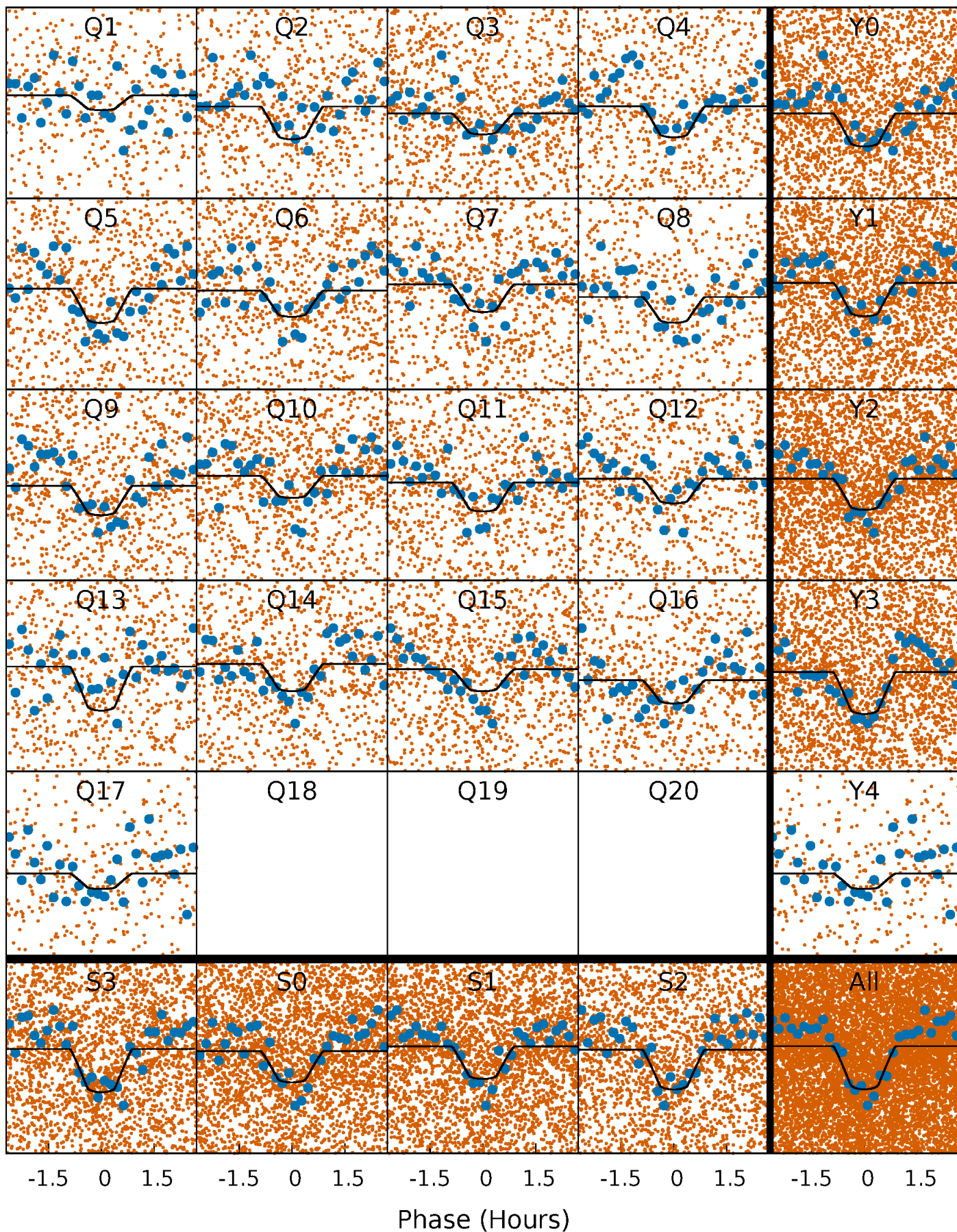
PDC Quarter-Phased Transit Curves

TCE 005212696-01 P= 0.653332 Days $T_0=131.914297$ (BKJD)



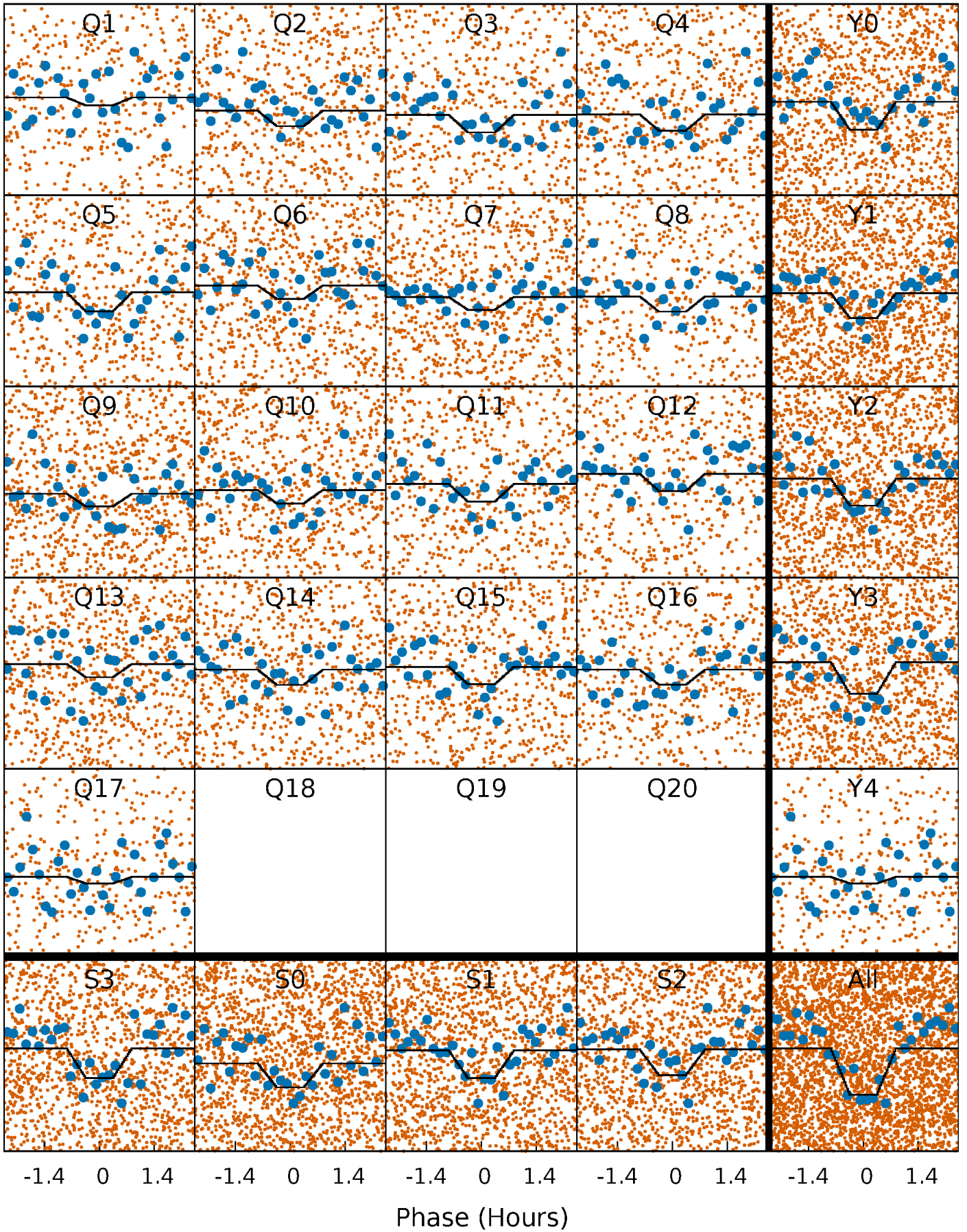
DV Quarter-Phased Transit Curves

TCE 005212696-01 P= 0.653332 Days $T_0=131.914297$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

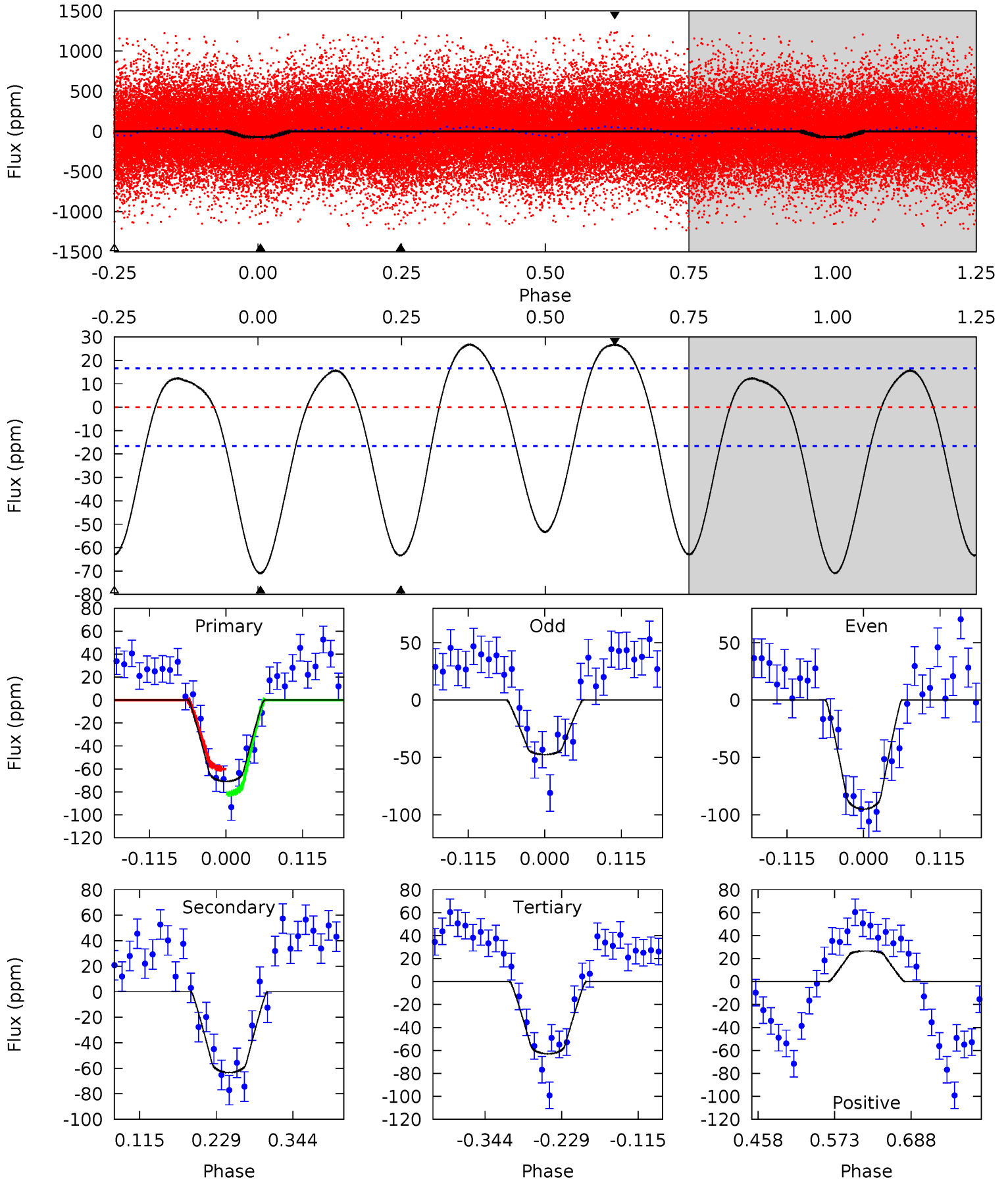
TCE 005212696-01 P= 0.653326 Days $T_0=131.920554$ (BKJD)



DV Model-Shift Uniqueness Test

005212696-01, P = 0.653332 Days, E = 131.260965 Days

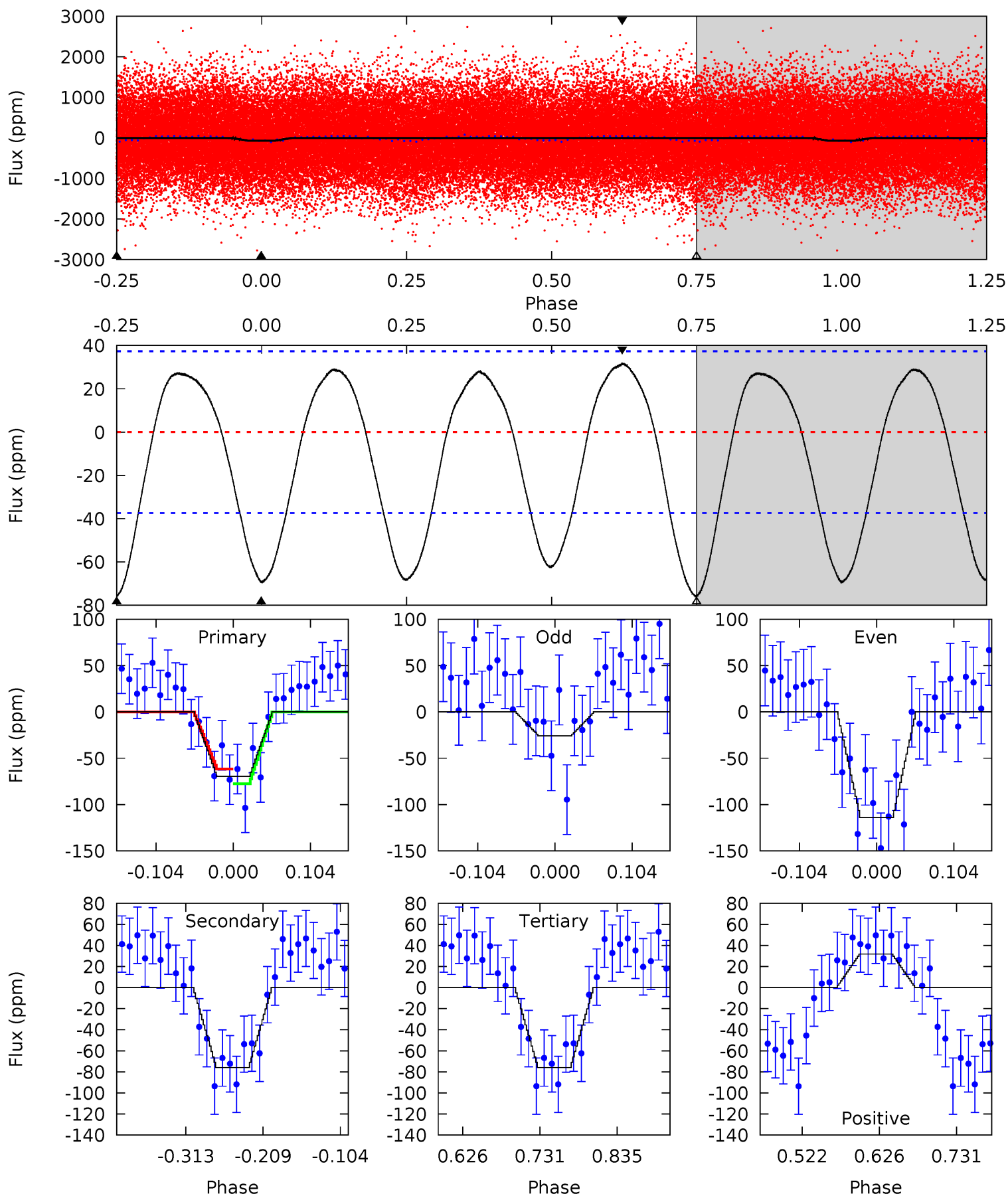
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.4	17.3	17.2	7.29	4.54	1.58	7.95	2.18	12.1	0.11	10.0	6.53	1.08	0.27	2.97



Alt Model-Shift Uniqueness Test

005212696-01, P = 0.653326 Days, E = 131.267228 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.47	9.25	9.25	3.88	4.56	1.62	4.24	-0.78	4.60	0.00	5.37	5.37	0.86	0.30	0.97



Stellar Parameters For KIC 005212696

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7696^{+214}_{-322}	$4.132^{+0.120}_{-0.180}$	$0.000^{+0.200}_{-0.350}$	$1.840^{+0.519}_{-0.346}$	$1.673^{+0.194}_{-0.267}$	$0.378^{+0.218}_{-0.188}$
	+3%/-4%	+3%/-4%	+inf%/-inf%	+28%/-19%	+12%/-16%	+58%/-50%
Source	KIC0	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 005212696-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-63 ± 4	$1.80^{+0.52}_{-0.46}$	4901^{+349}_{-319}	7041^{+1450}_{-924}	$3.315^{+2.473}_{-1.317}$
Alt.	-76 ± 8	$1.72^{+0.50}_{-0.45}$	4880^{+362}_{-276}	7616^{+1671}_{-1010}	$4.204^{+3.648}_{-1.680}$

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 $A_{obs} \gg 1.0$

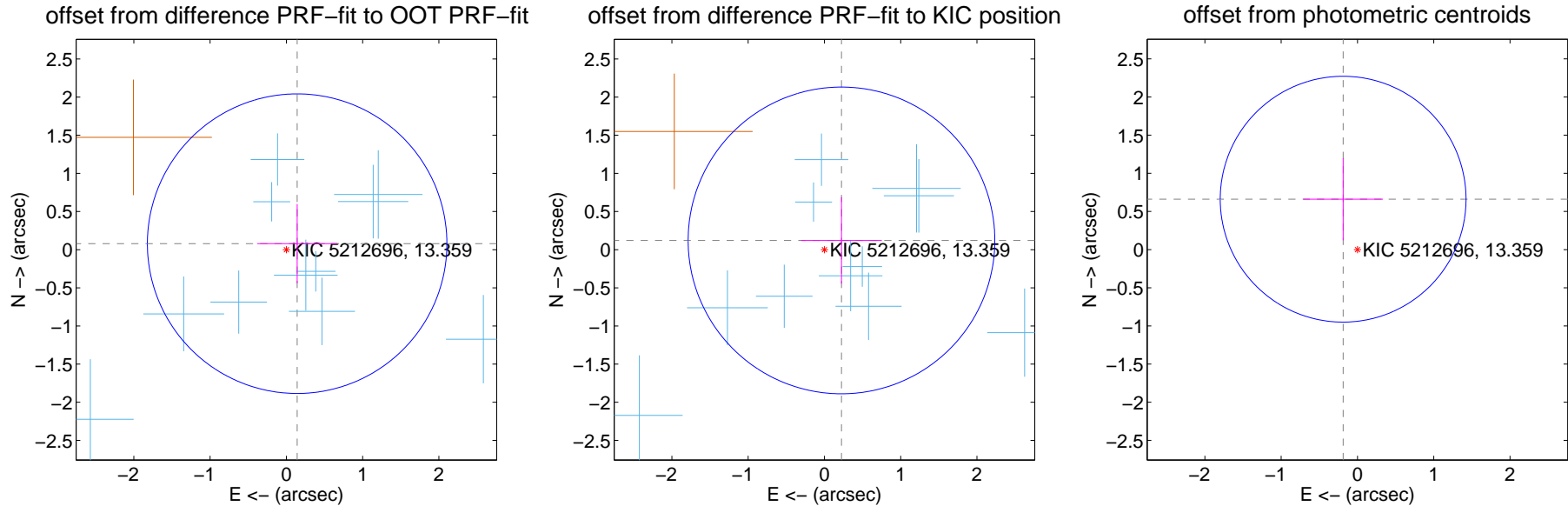
DV Centroid Data

Supplemental centroid analysis for 005212696-01. Kepler magnitude: 13.36. Transit SNR 11.08

There are 11 quarters with good PRF difference image offsets

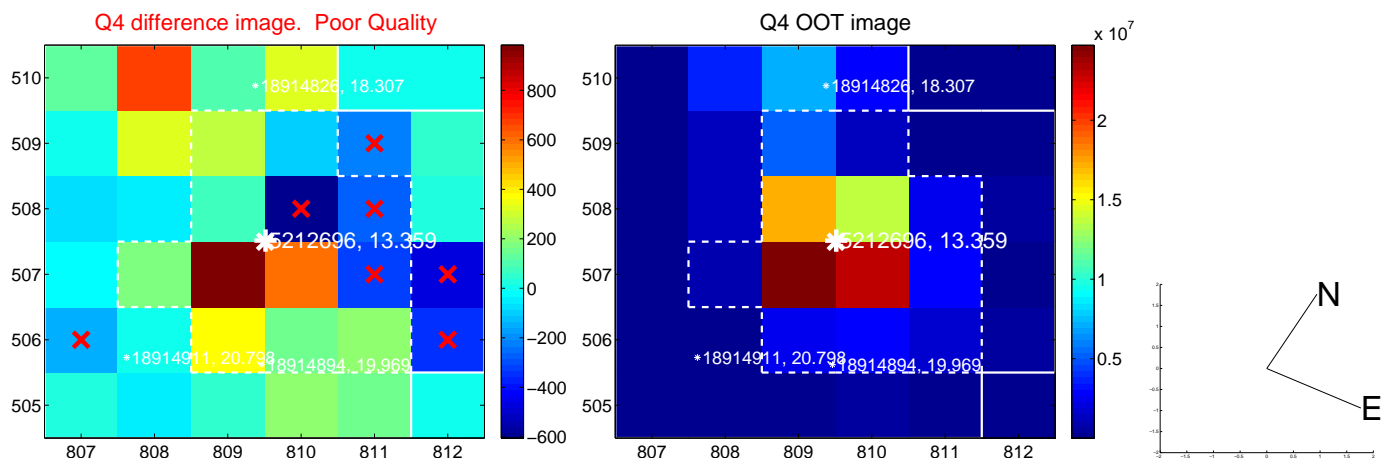
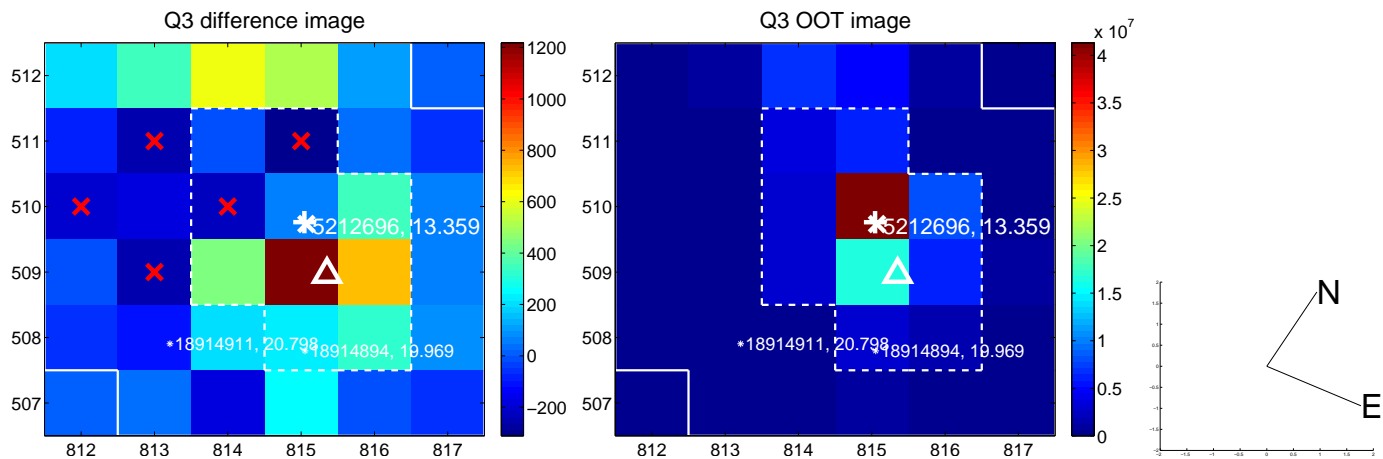
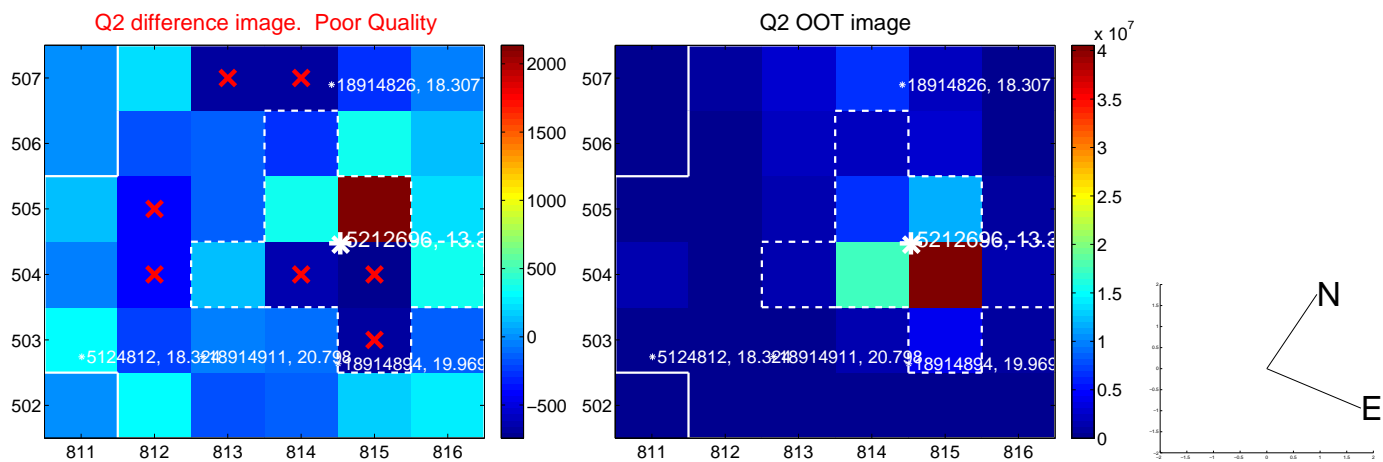
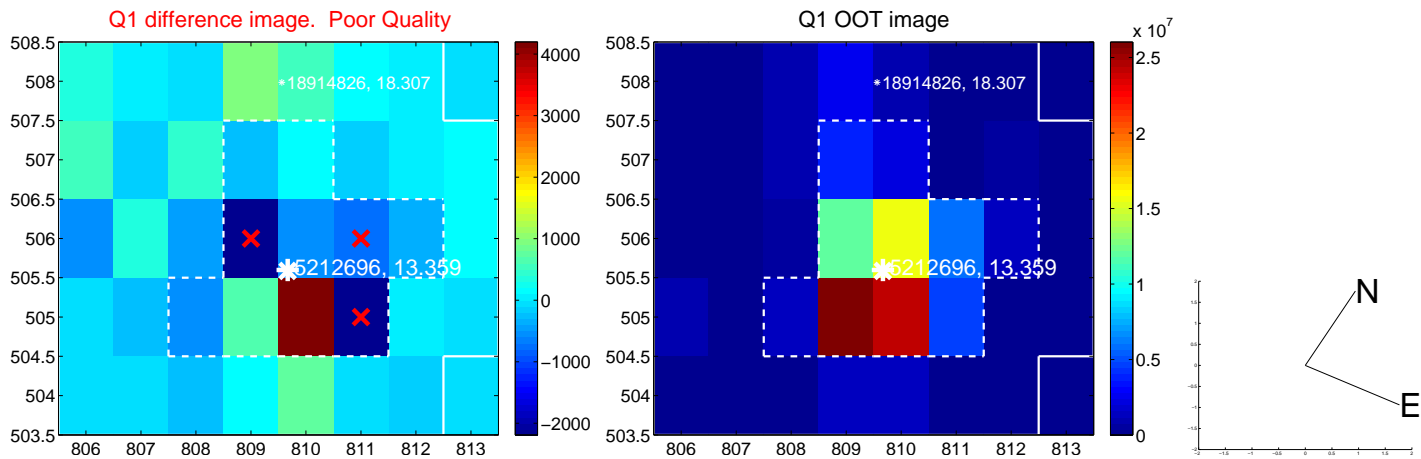
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.162 ± 0.654	0.25	-0.141 ± 0.524	0.079 ± 0.519
PRF-fit source offset from KIC position	0.254 ± 0.670	0.38	-0.224 ± 0.528	0.121 ± 0.566
photometric centroid source offset	0.69 ± 0.54	1.28	0.19 ± 0.52	0.66 ± 0.54

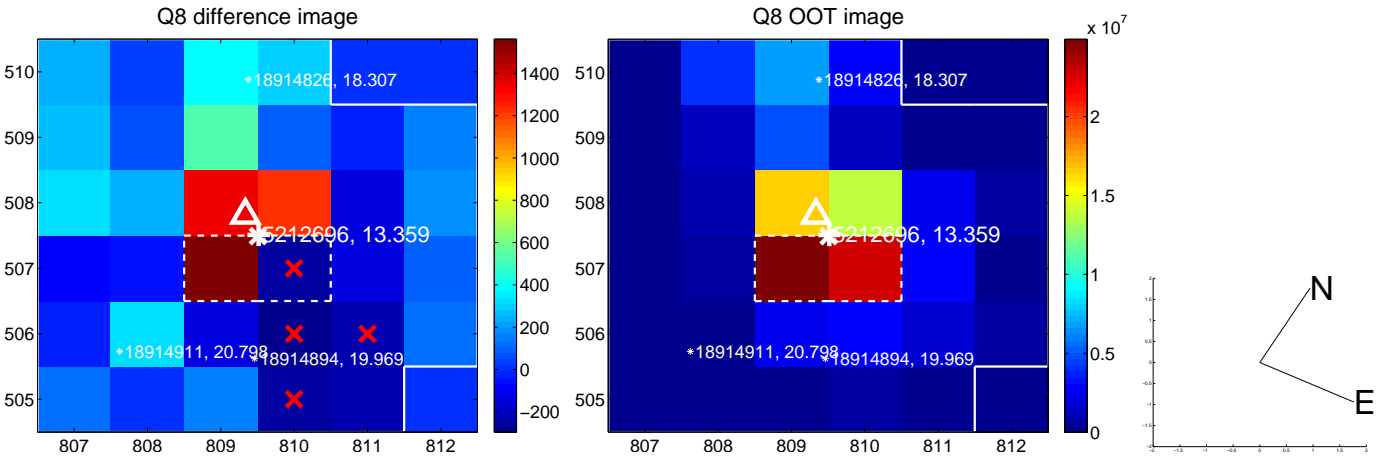
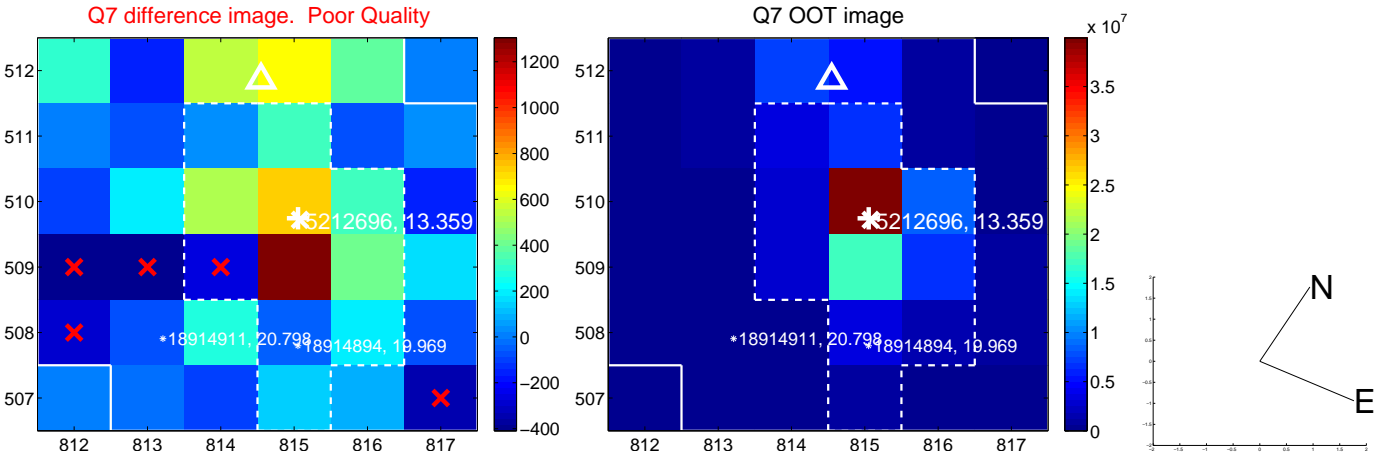
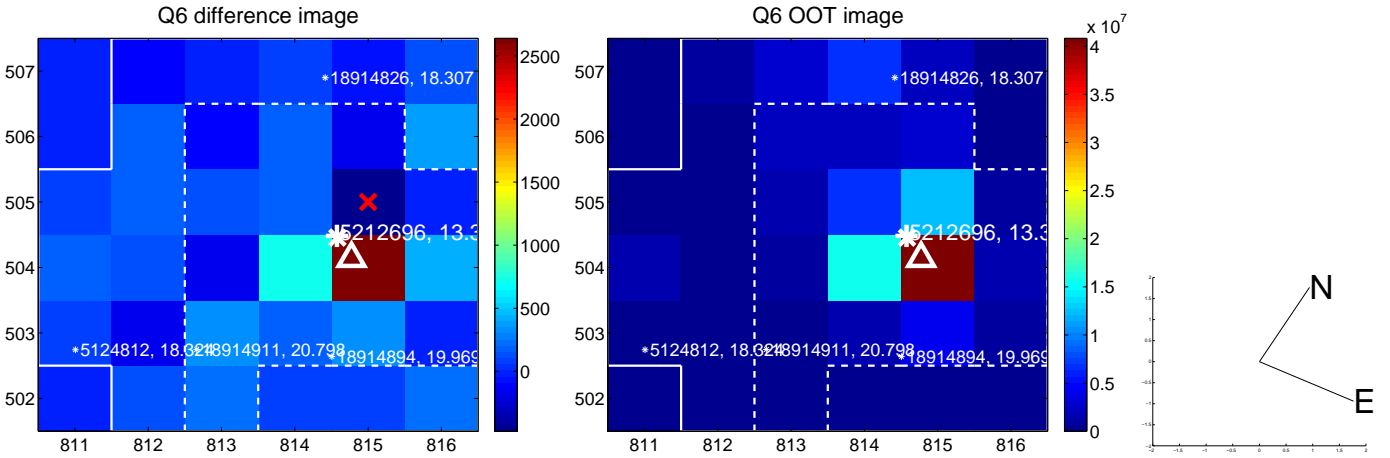
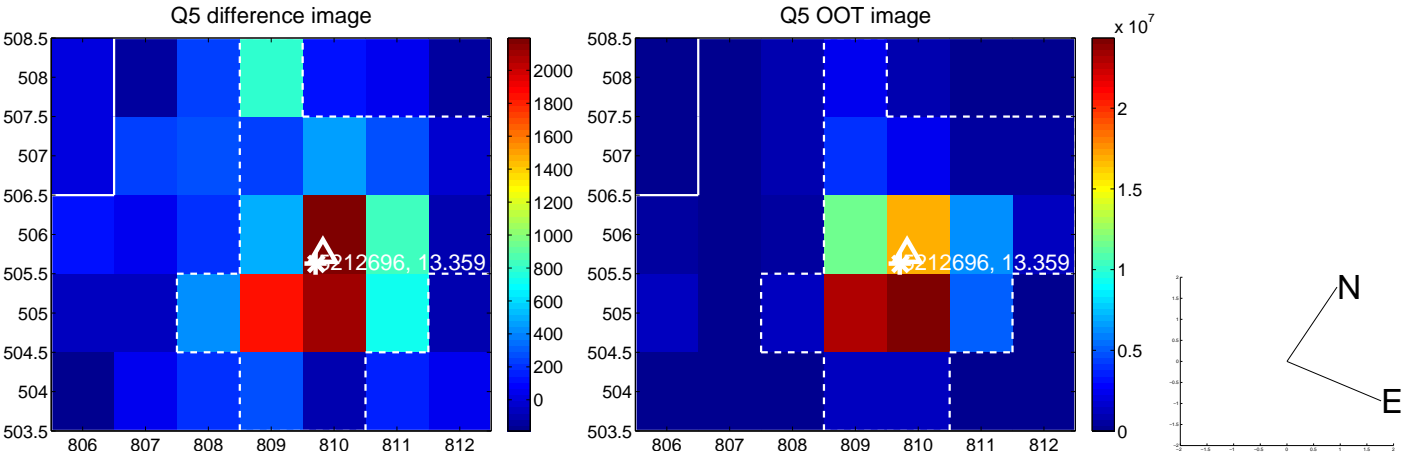


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

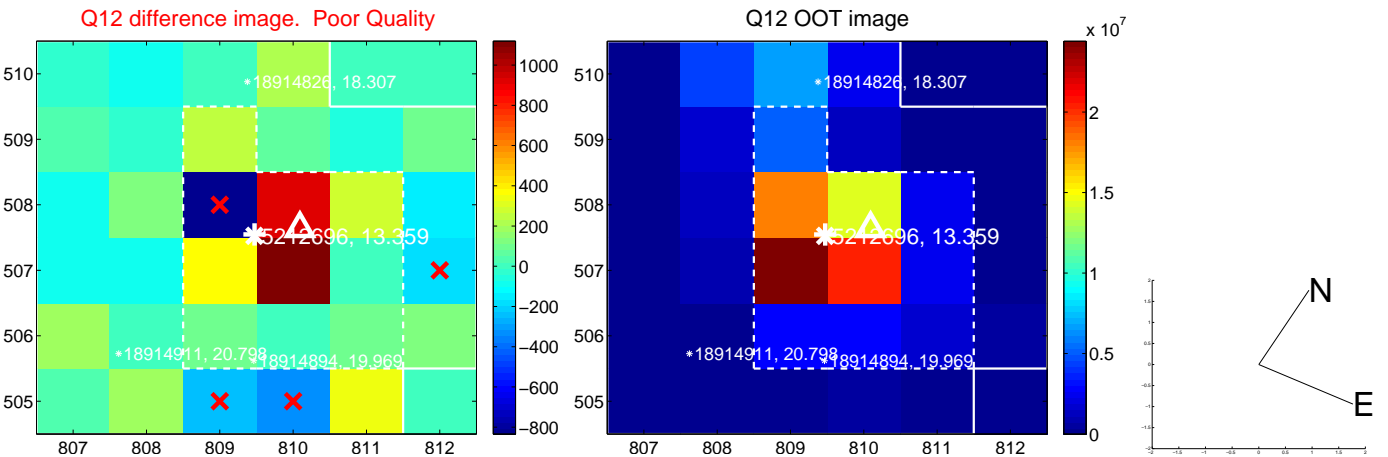
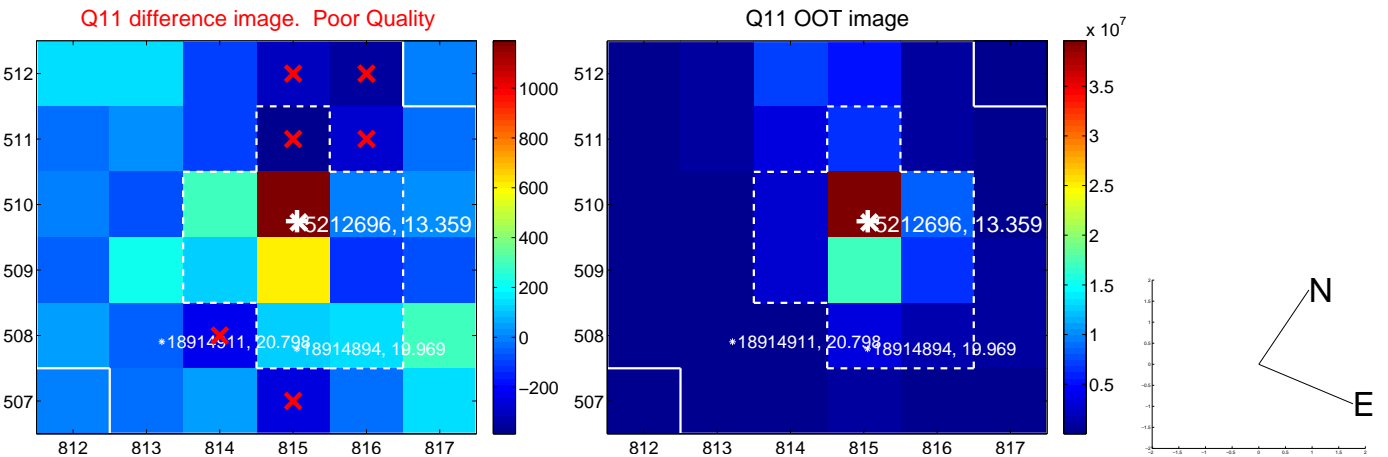
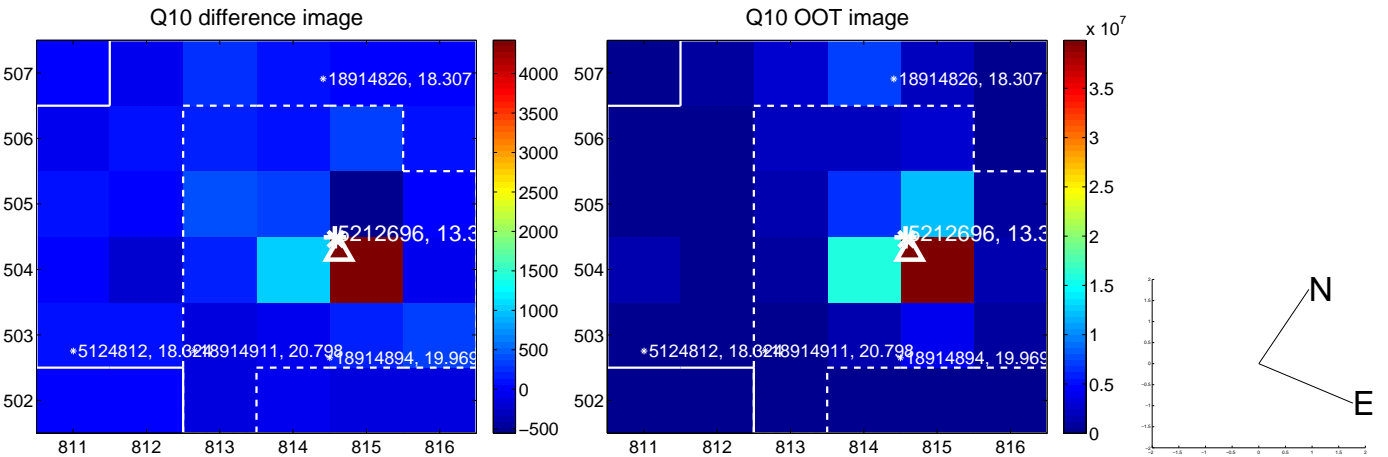
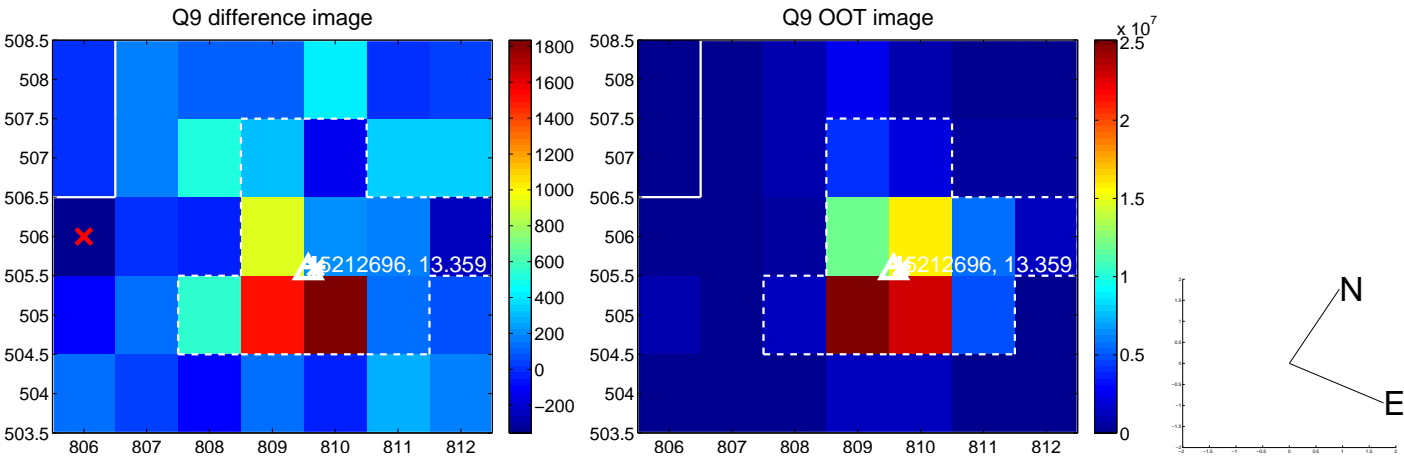
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



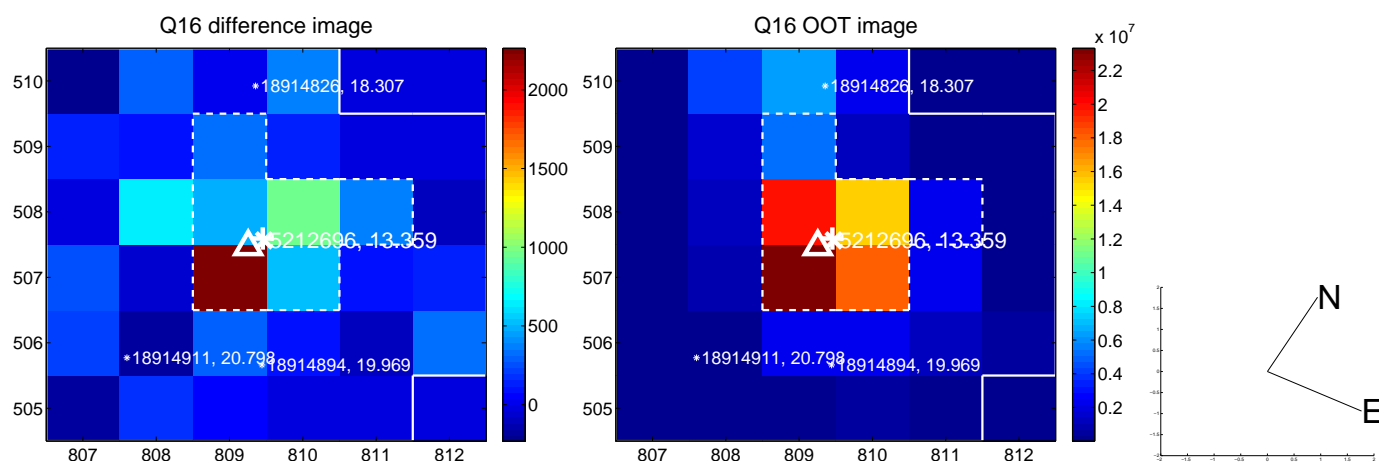
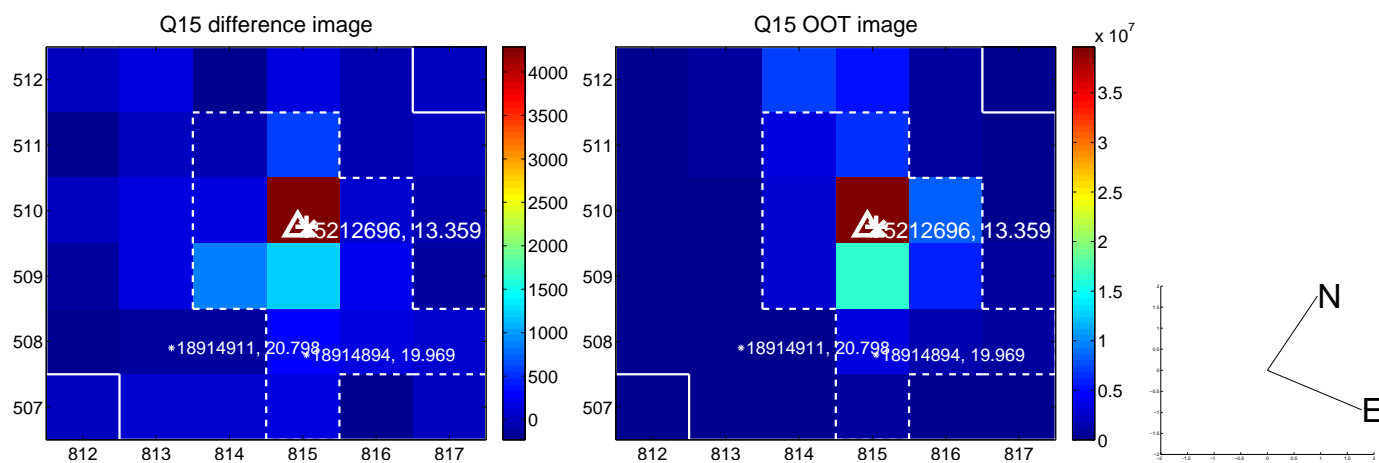
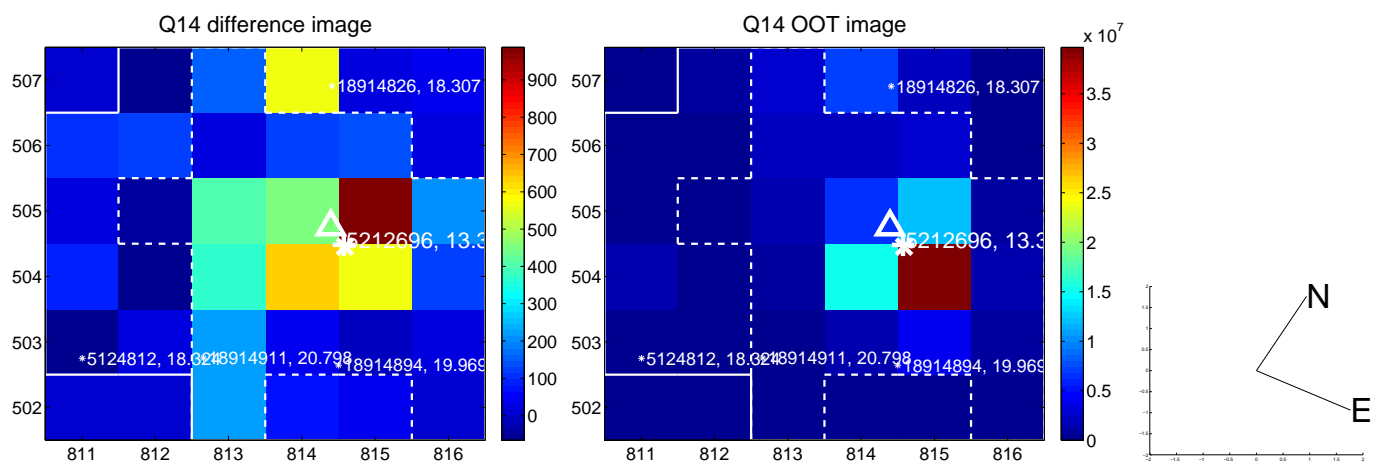
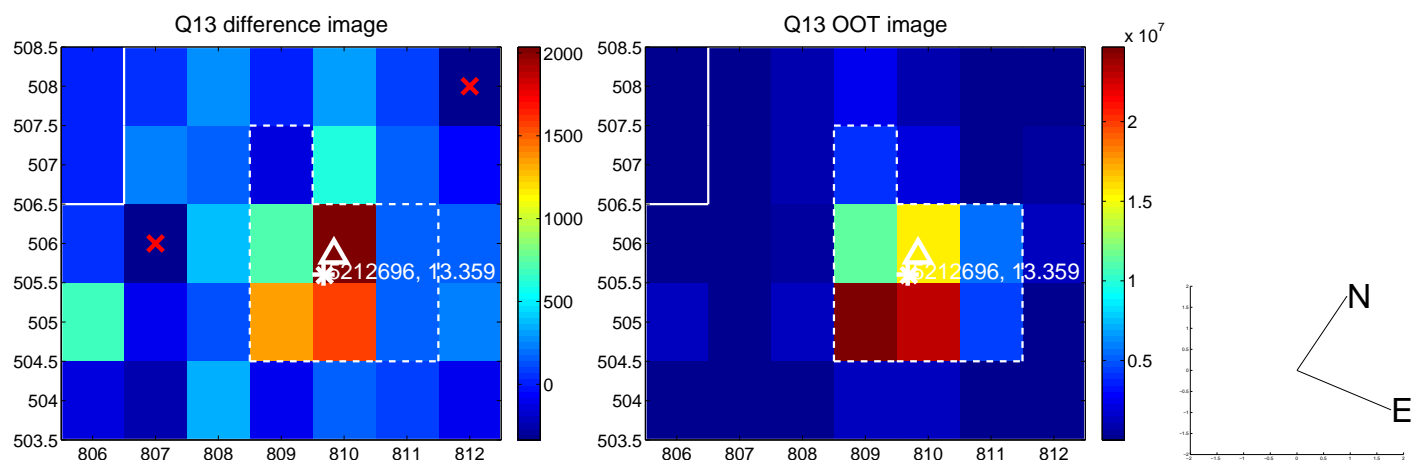
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



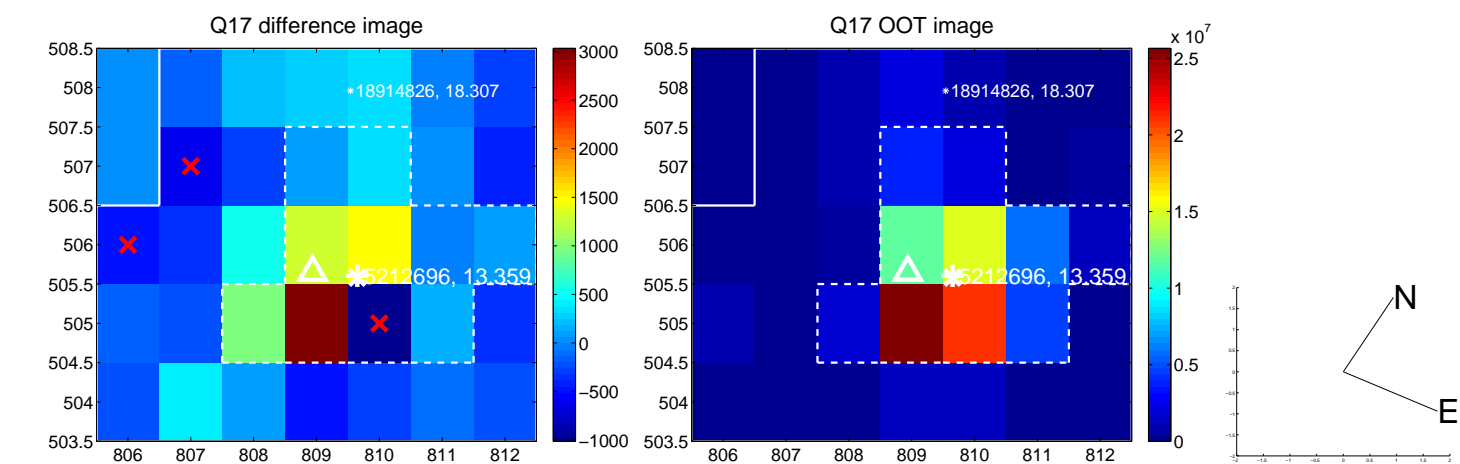
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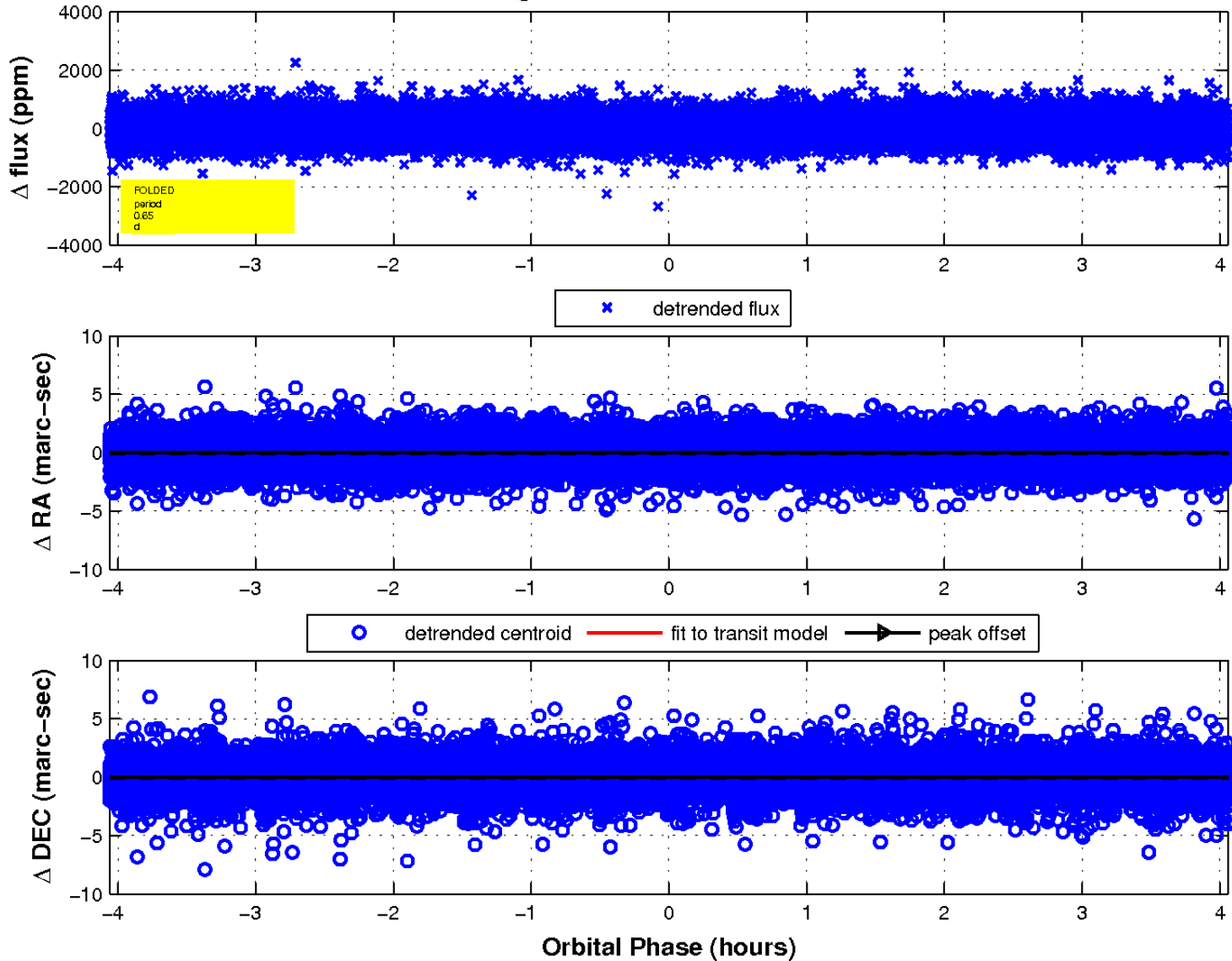
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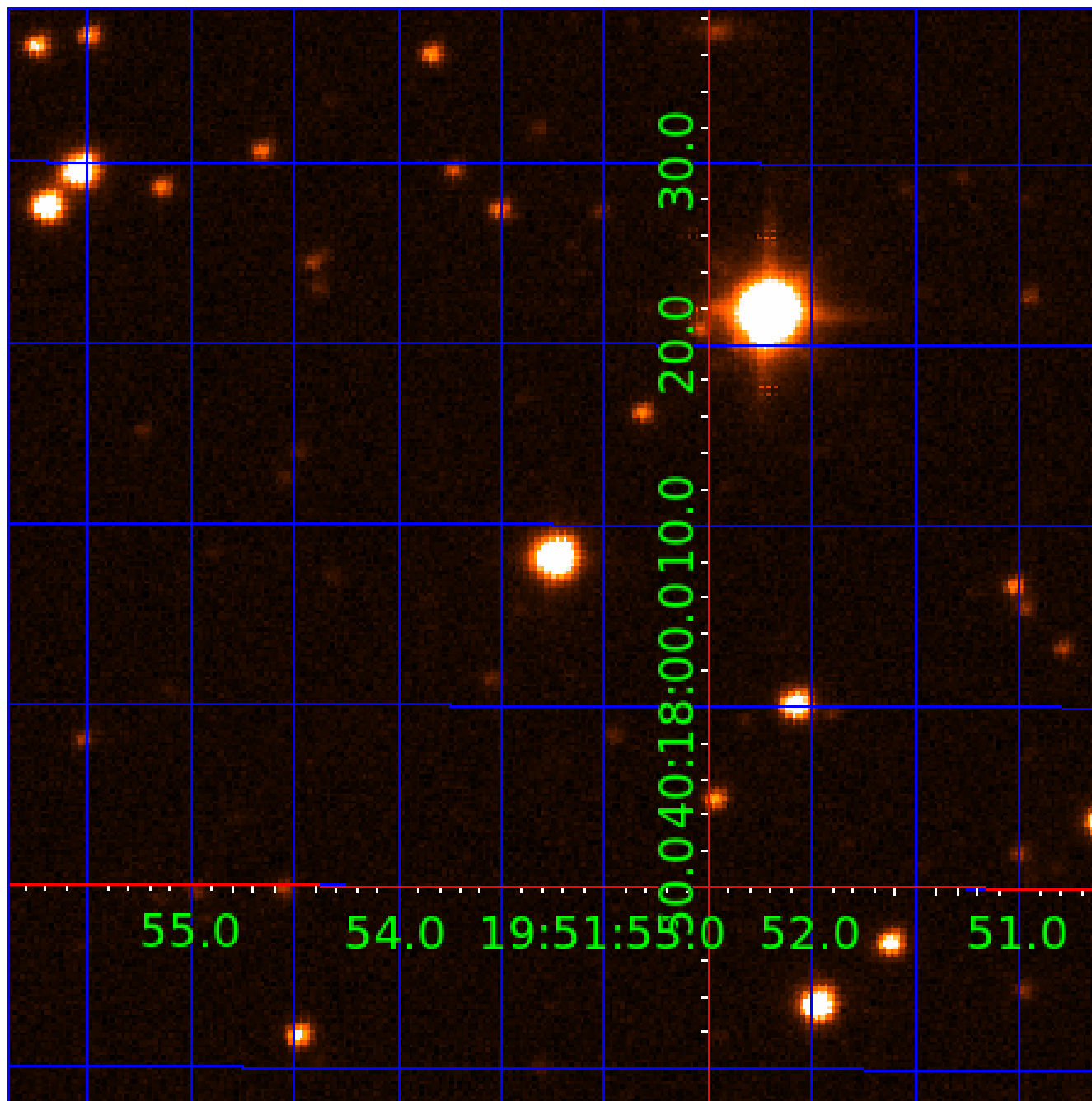


fluxWeightedCentroids, Planet 1 of 5



UKIRT Image

Declination



KIC 005212696

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})
005212696-01	OBS	No	0.653332	131.914297	65.6	1.353	10.2	11.1	1.84	7696	1.78	34752.64
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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
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005212696-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD
005212696-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—SAME_NTL_PERIOD
005212696-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
005212696-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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

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

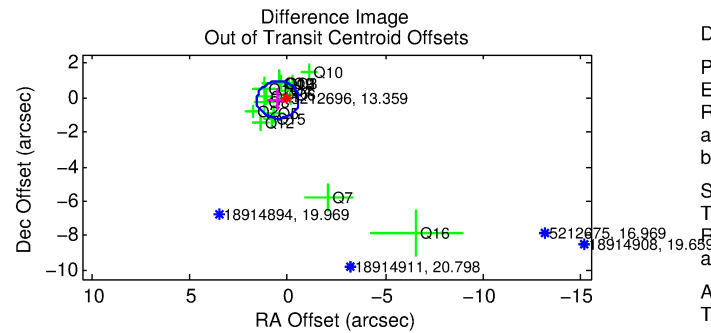
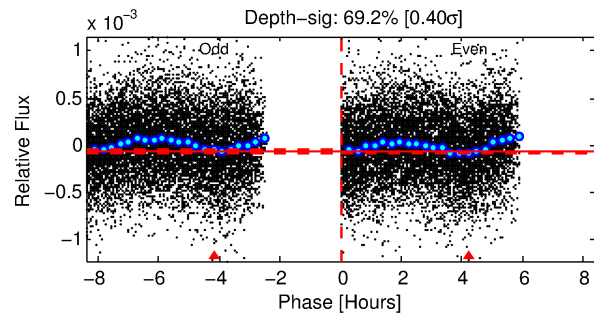
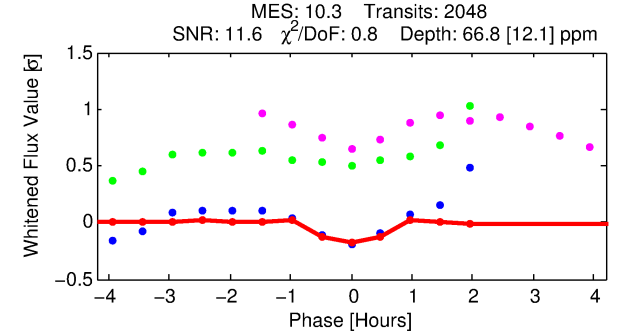
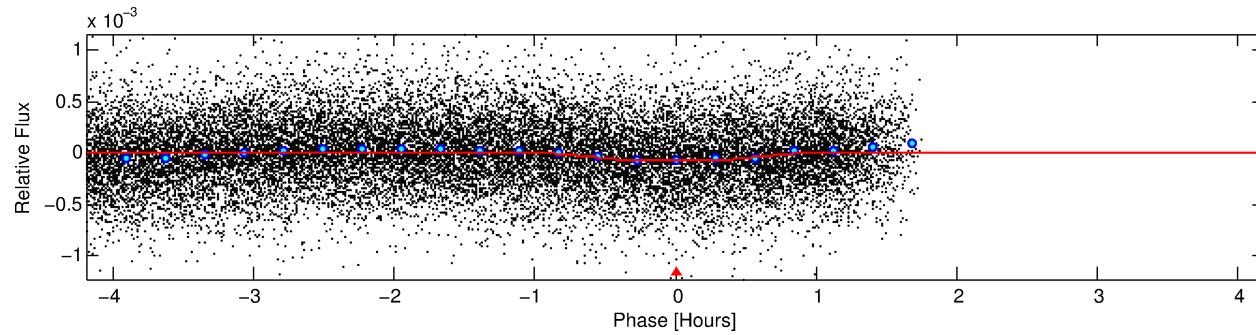
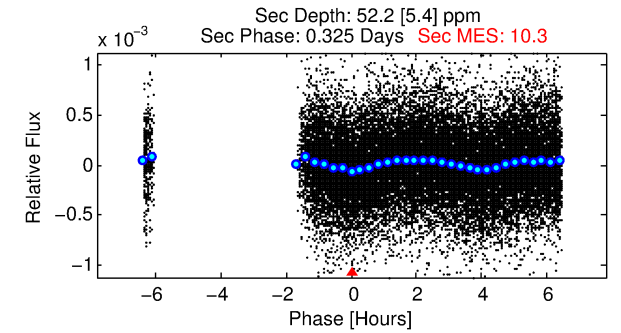
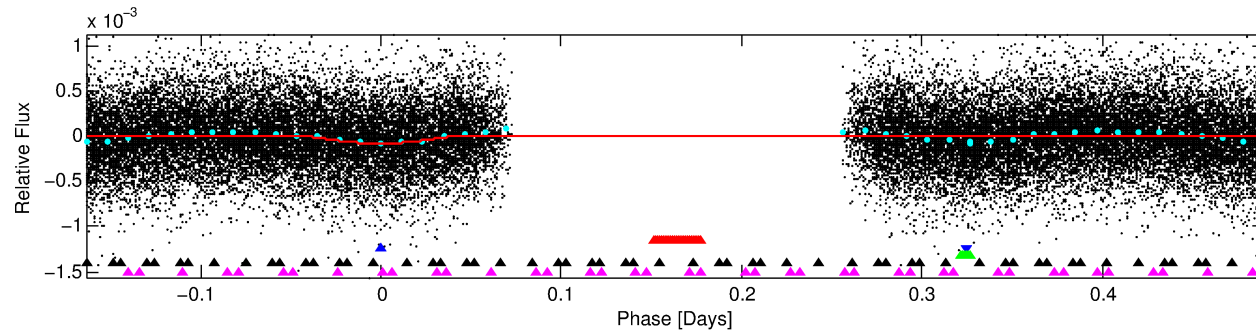
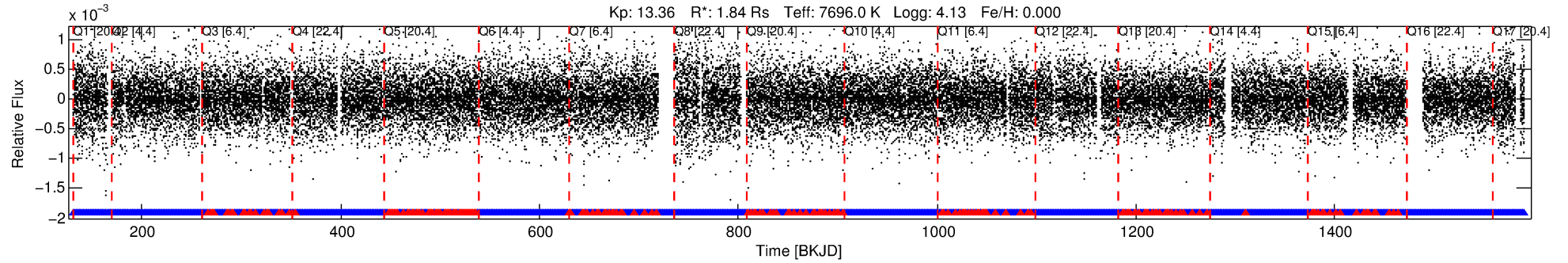
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005212696-02

No Significant Match Found

DV One-Page Summary

KIC: 5212696 Candidate: 2 of 5 Period: 0.653 d



DV Fit Results:

Period = 0.65332 [0.00002] d
Epoch = 131.7631 [0.0015] BKJD
Rp/R* = 0.0087 [0.0028]
a/R* = 1.88 [2.73]
b = 0.90 [0.43]
Seff = 34753.47 [12990.41]
Teq = 3482 [325] K
Rp = 1.75 [0.74] Re
a = 0.0175 [0.0041] AU
Ag = 2.89 [2.11] [0.90σ]
Teffp = 7017 [1175] K [2.90σ]

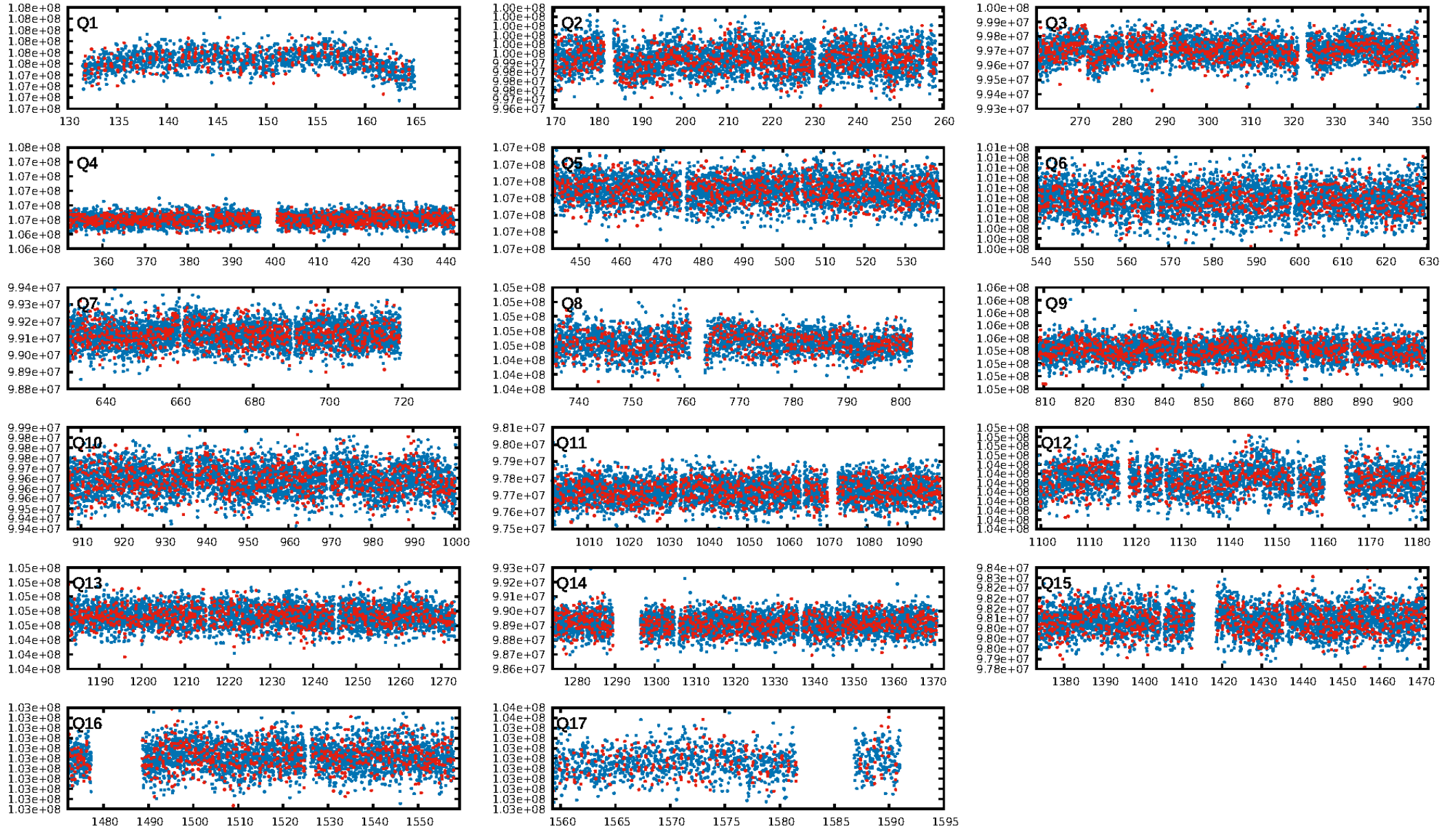
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 7.37e-15
RollingBand-fgt: 0.90 [1762/1956]
GhostDiagnostic-chr: 1.636
Centroid-sig: 0.3%
Centroid-so: 0.780 arcsec [1.53σ]
OotOffset-rm: 0.511 arcsec [1.43σ]
KicOffset-rm: 0.425 arcsec [1.03σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 0.81 [13/16]
DiffImageOverlap-fno: 0.00 [0/17]

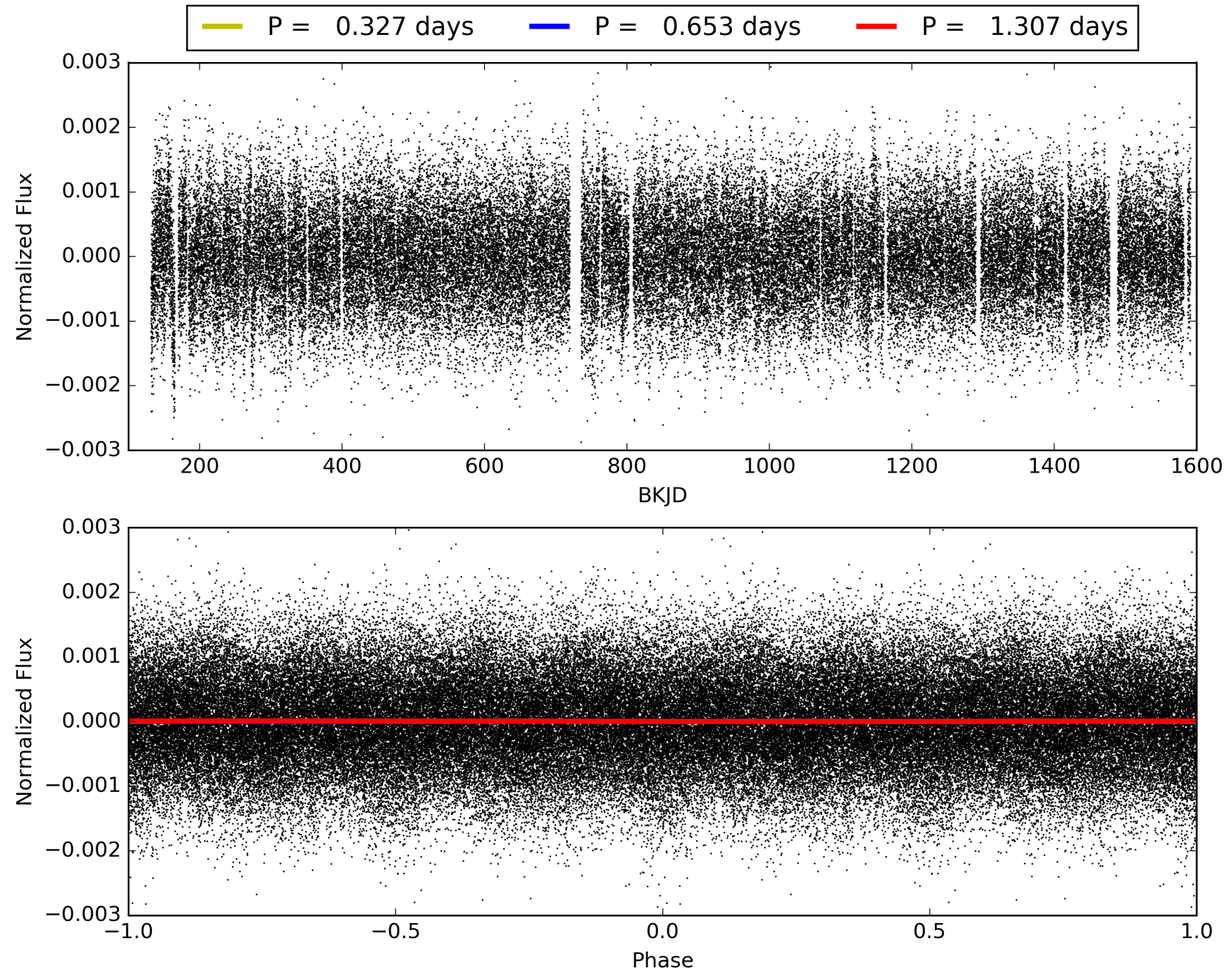
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 13:49:00 Z

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

TCE 005212696-02, PDC Light Curves

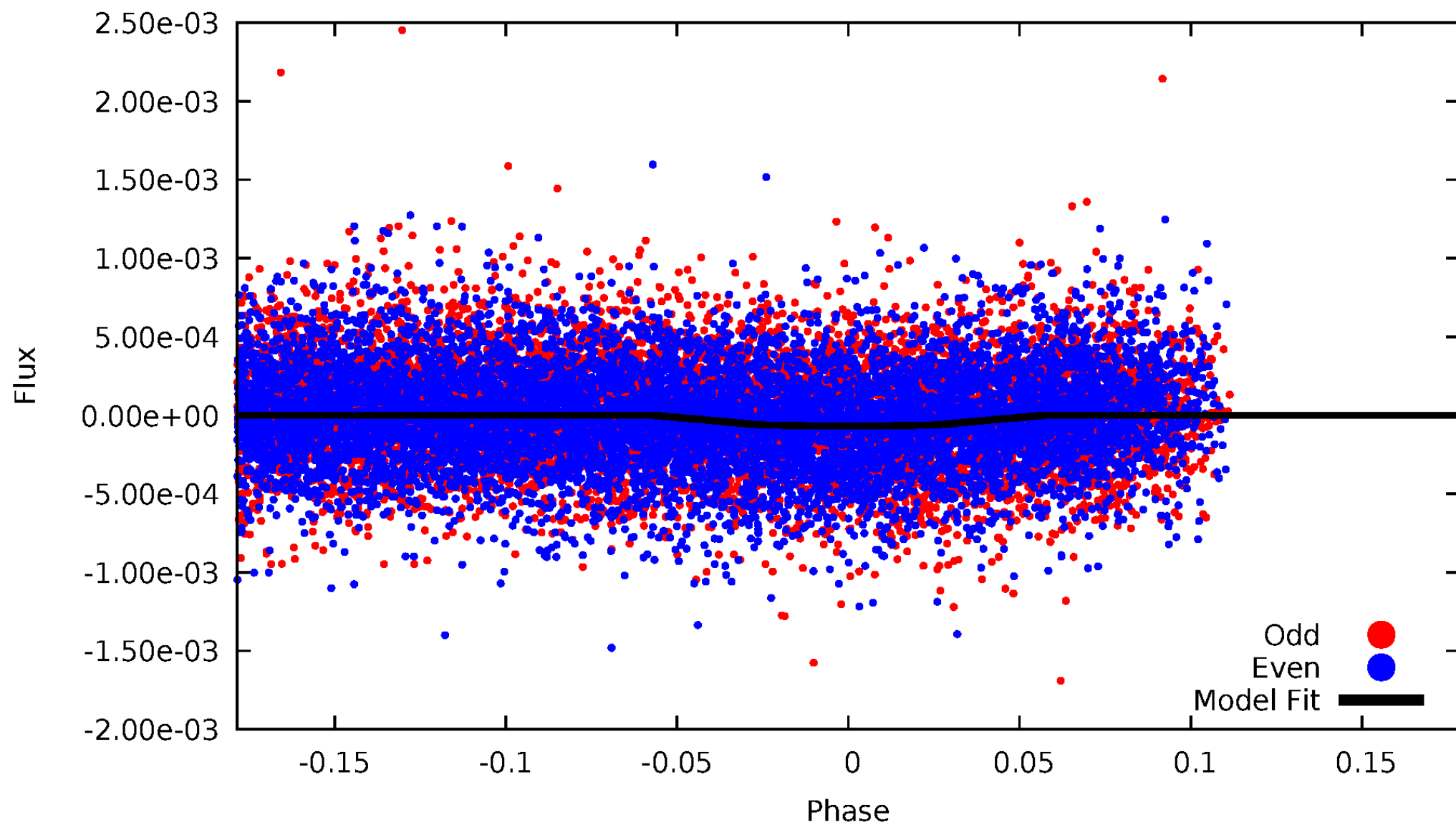


TCE 005212696-02



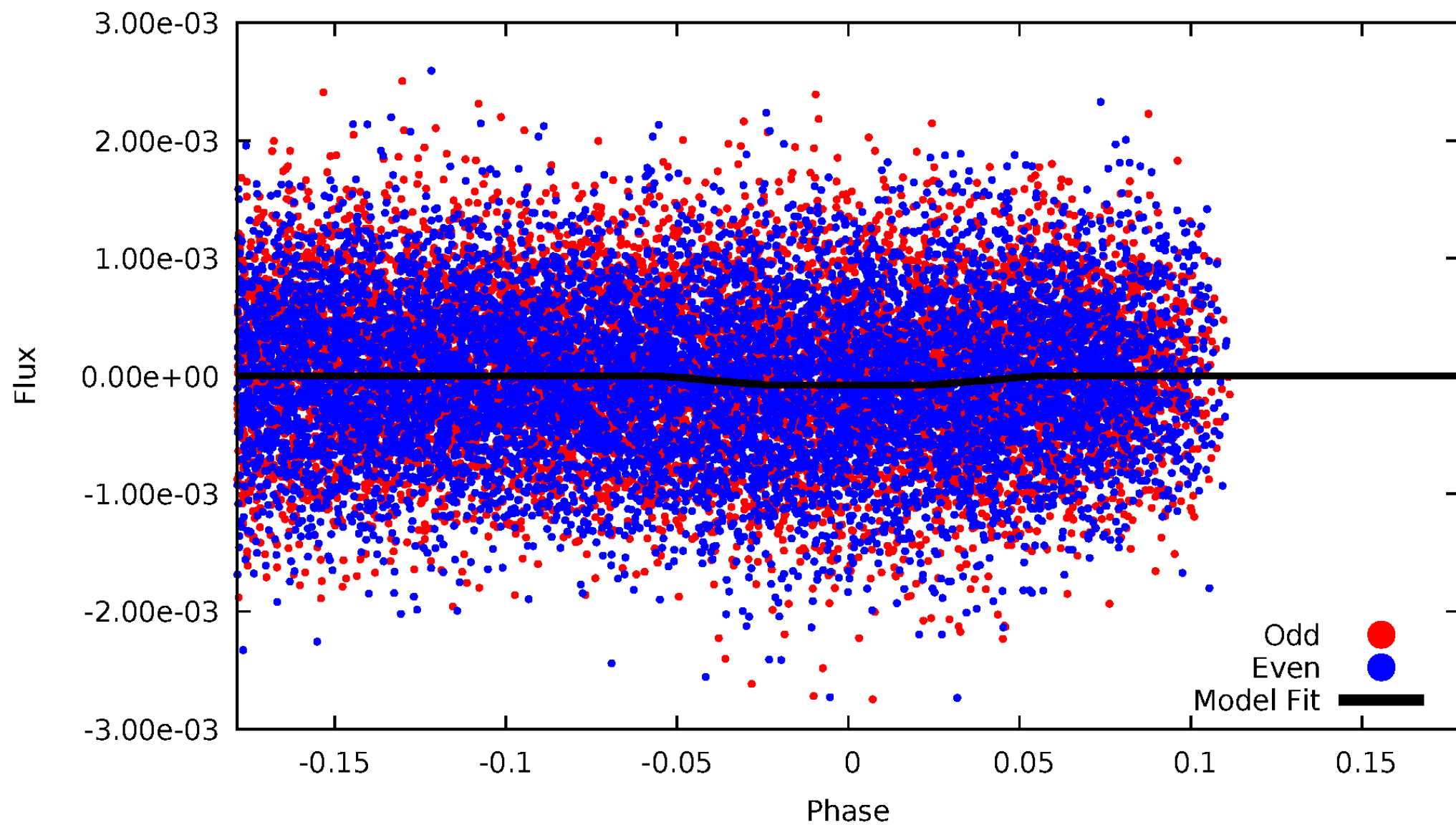
DV Odd/Even

TCE 005212696-02



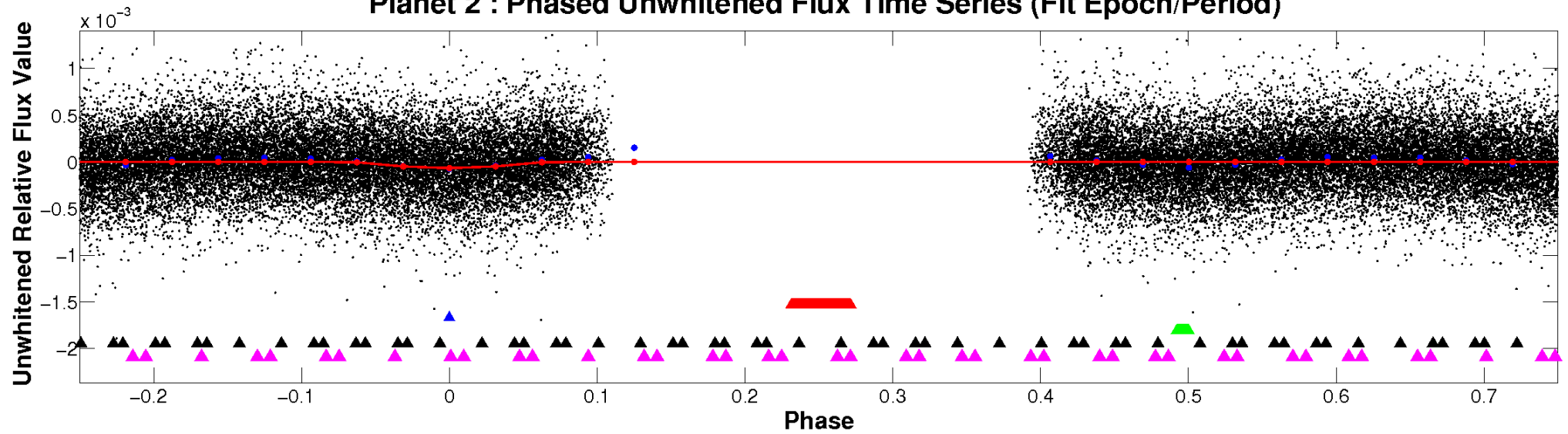
ALT Odd/Even

TCE 005212696-02

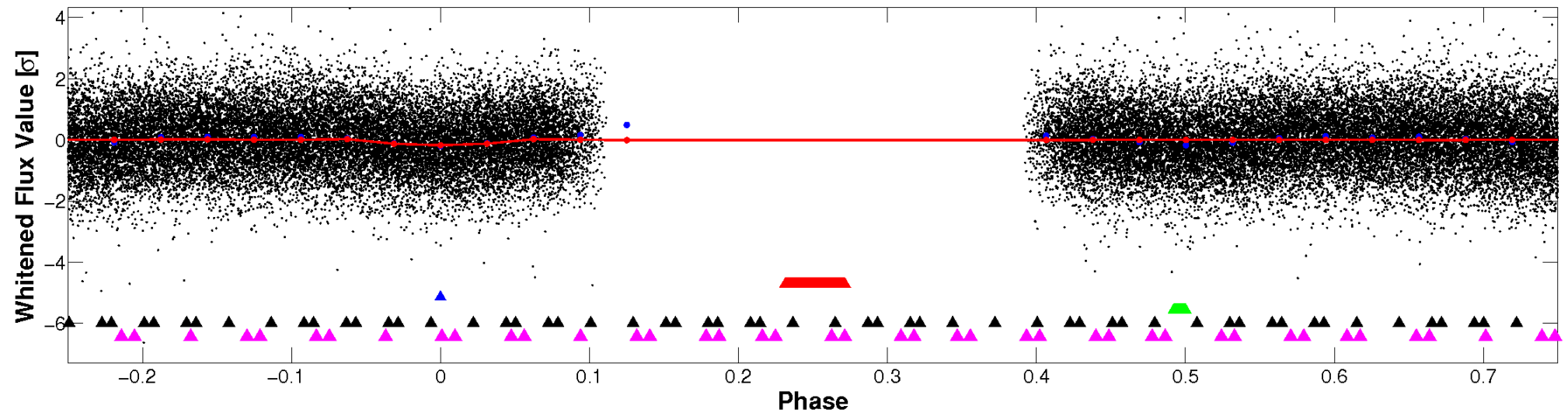


Non-Whitened Vs. Whitened Light Curve

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

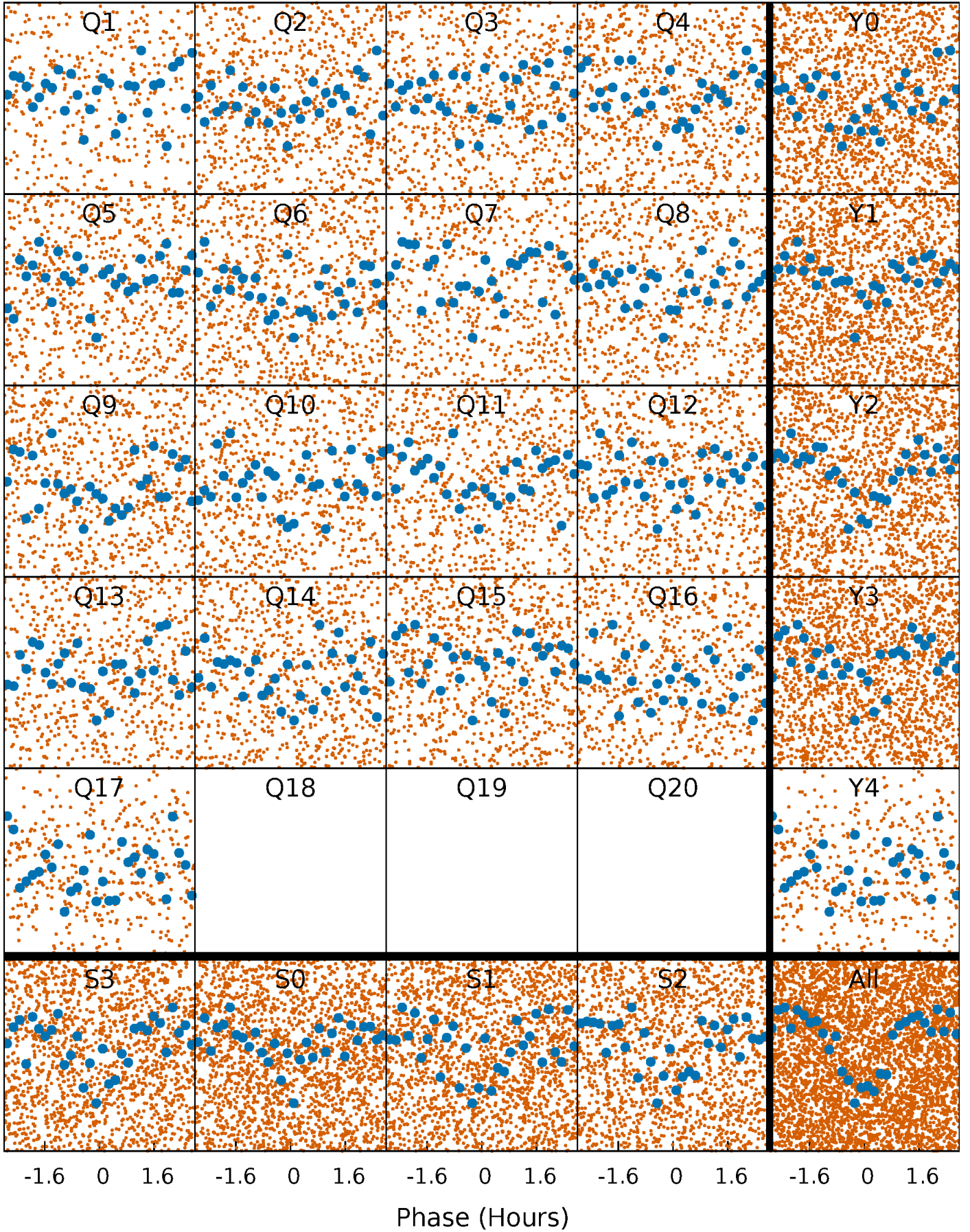


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



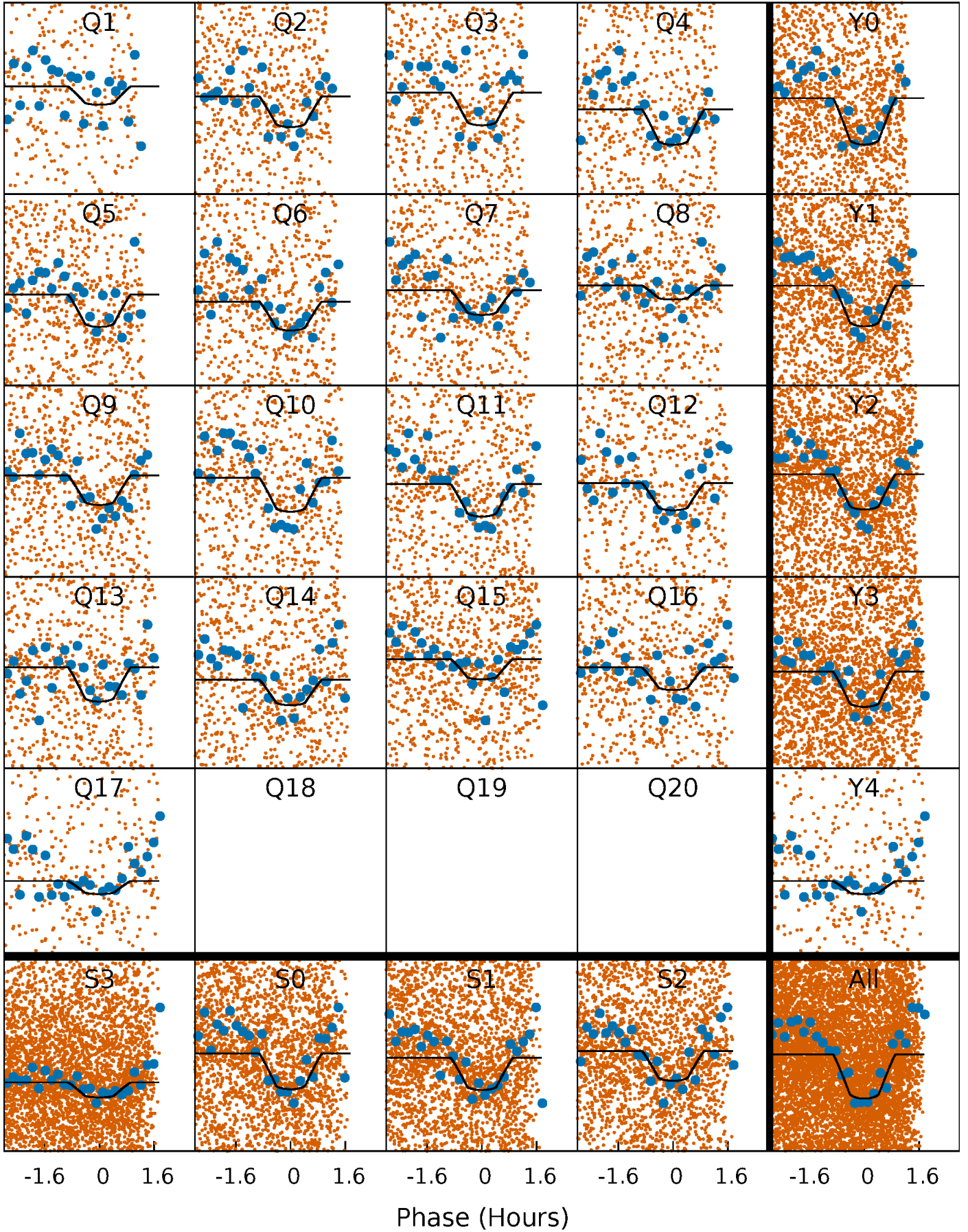
PDC Quarter-Phased Transit Curves

TCE 005212696-02 P= 0.653320 Days $T_0=131.763094$ (BKJD)



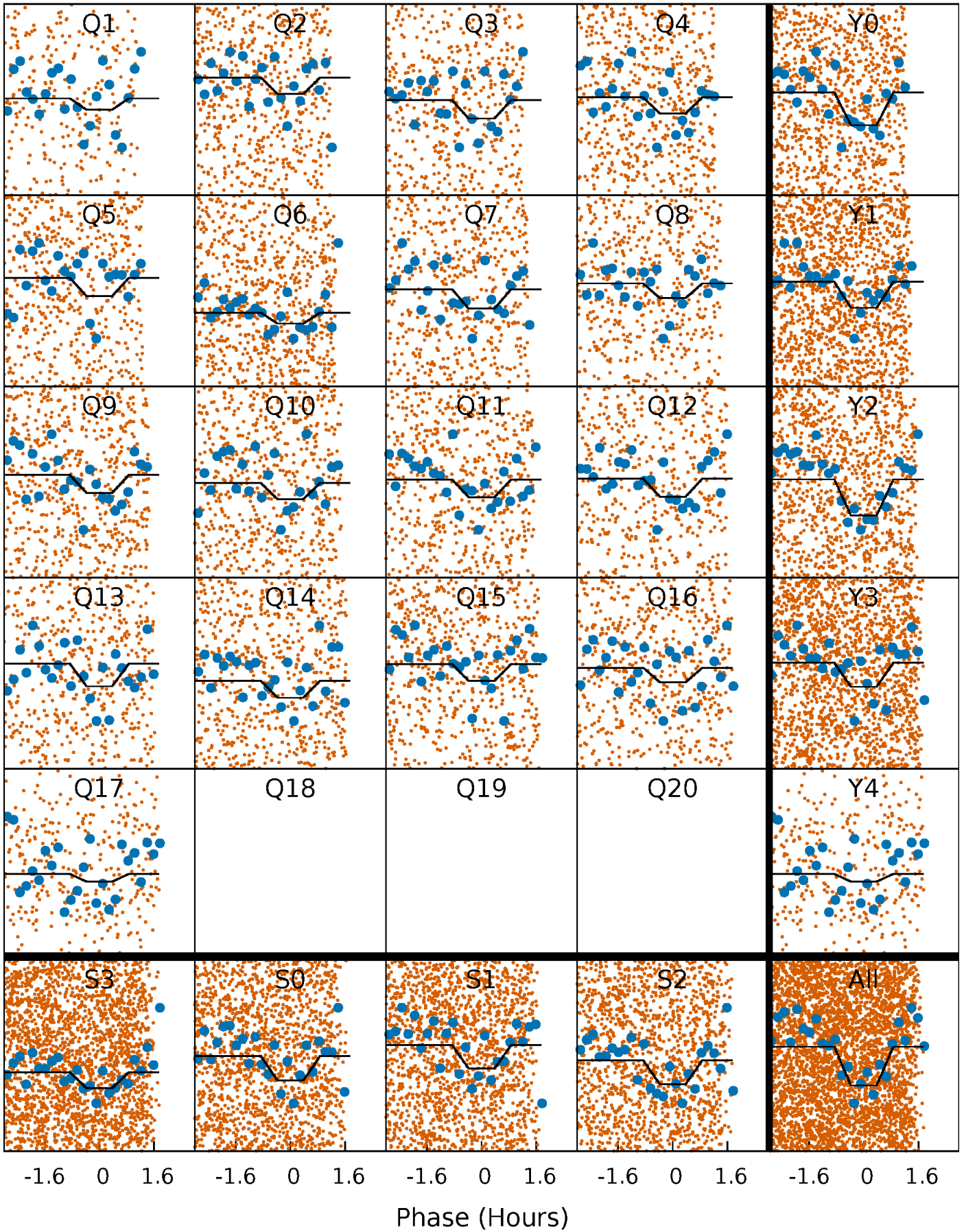
DV Quarter-Phased Transit Curves

TCE 005212696-02 P= 0.653320 Days $T_0=131.763094$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

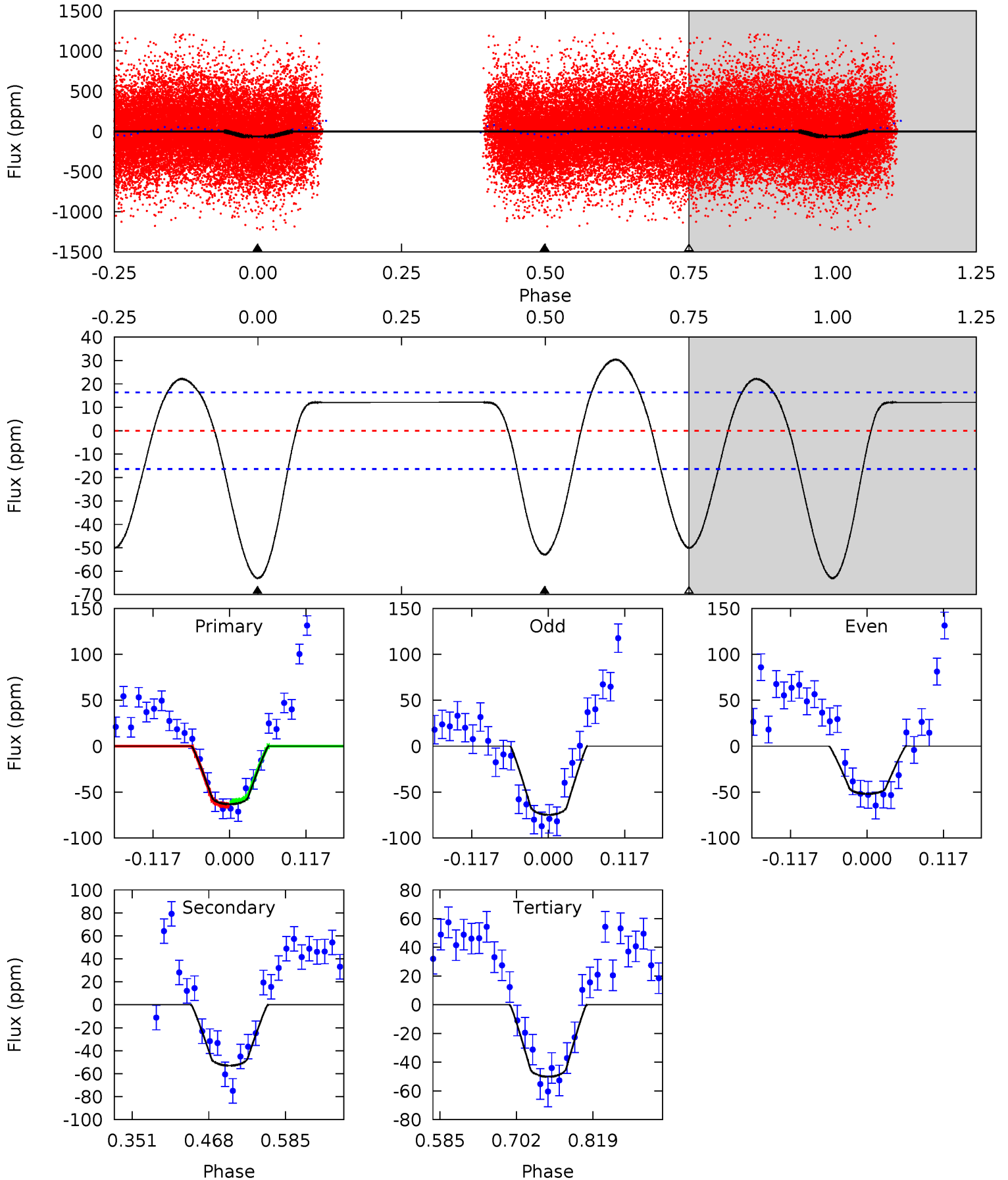
TCE 005212696-02 P= 0.653320 Days $T_0=131.763094$ (BKJD)



DV Model-Shift Uniqueness Test

005212696-02, P = 0.653320 Days, E = 131.109774 Days

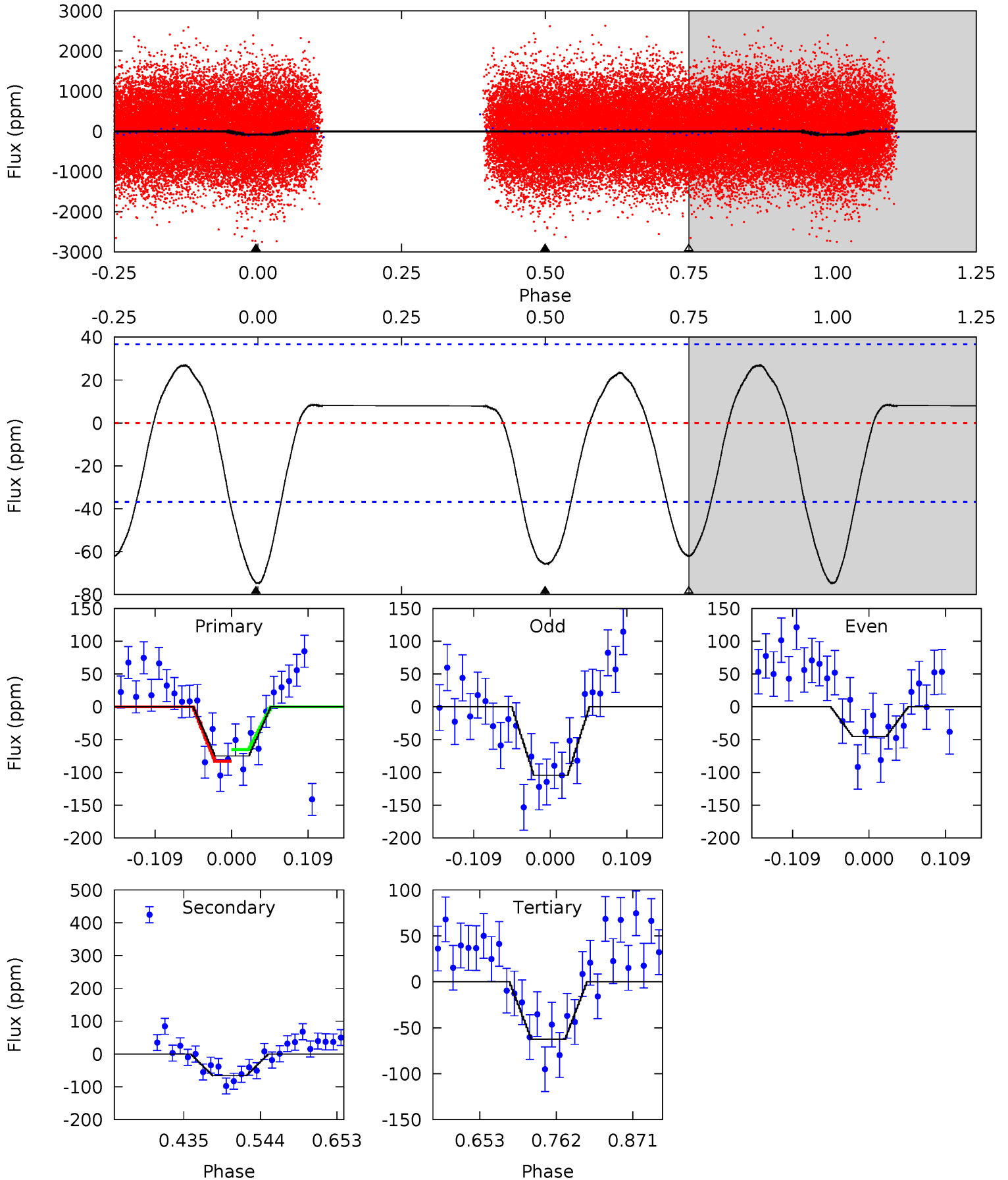
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.5	14.7	13.9	0	4.53	1.57	7.62	3.60	17.5	0.79	14.7	3.19	1.13	0.33	0.54



Alt Model-Shift Uniqueness Test

005212696-02, P = 0.653320 Days, E = 131.109774 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.28	8.17	7.72	0	4.55	1.60	3.88	1.57	9.28	0.46	8.17	3.66	0.96	0.27	1.12



Stellar Parameters For KIC 005212696

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7696^{+214}_{-322}	$4.132^{+0.120}_{-0.180}$	$0.000^{+0.200}_{-0.350}$	$1.840^{+0.519}_{-0.346}$	$1.673^{+0.194}_{-0.267}$	$0.378^{+0.218}_{-0.188}$
	+3%/-4%	+3%/-4%	+inf%/-inf%	+28%/-19%	+12%/-16%	+58%/-50%
Source	KIC0	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 005212696-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-53 ± 4	$1.80^{+0.60}_{-0.60}$	4908^{+342}_{-319}	6606^{+1923}_{-946}	$2.689^{+3.507}_{-1.172}$
Alt.	-66 ± 8	$1.79^{+0.66}_{-0.65}$	4886^{+362}_{-302}	7131^{+2481}_{-1165}	$3.389^{+4.837}_{-1.533}$

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

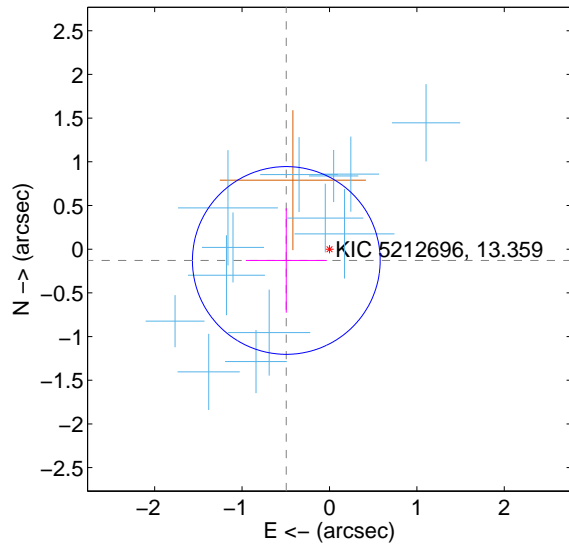
Supplemental centroid analysis for 005212696-02. Kepler magnitude: 13.36. Transit SNR 11.55

There are 13 quarters with good PRF difference image offsets

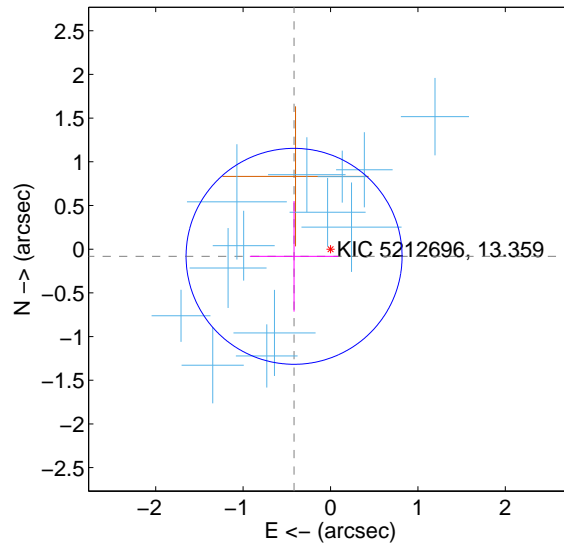
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.511 ± 0.358	1.43	0.494 ± 0.463	-0.129 ± 0.597
PRF-fit source offset from KIC position	0.425 ± 0.412	1.03	0.417 ± 0.506	-0.082 ± 0.632
photometric centroid source offset	0.78 ± 0.51	1.53	-0.49 ± 0.50	-0.61 ± 0.52

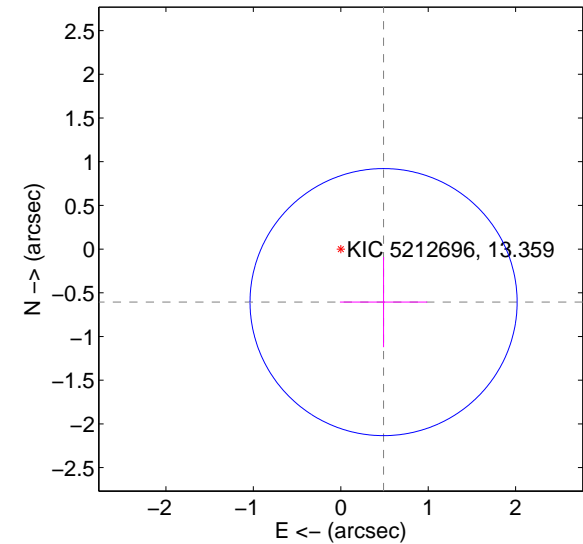
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

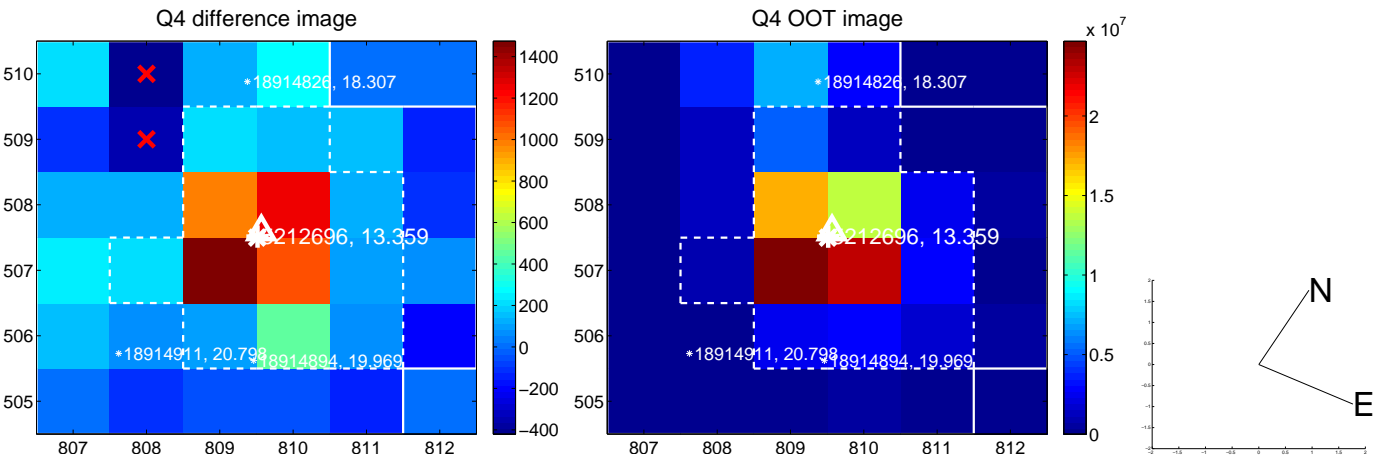
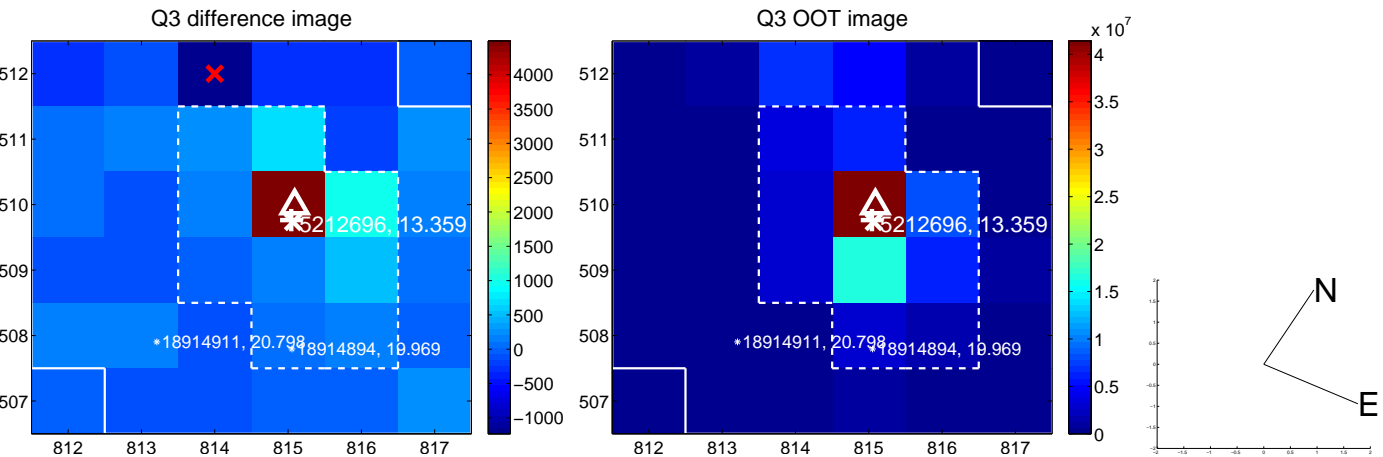
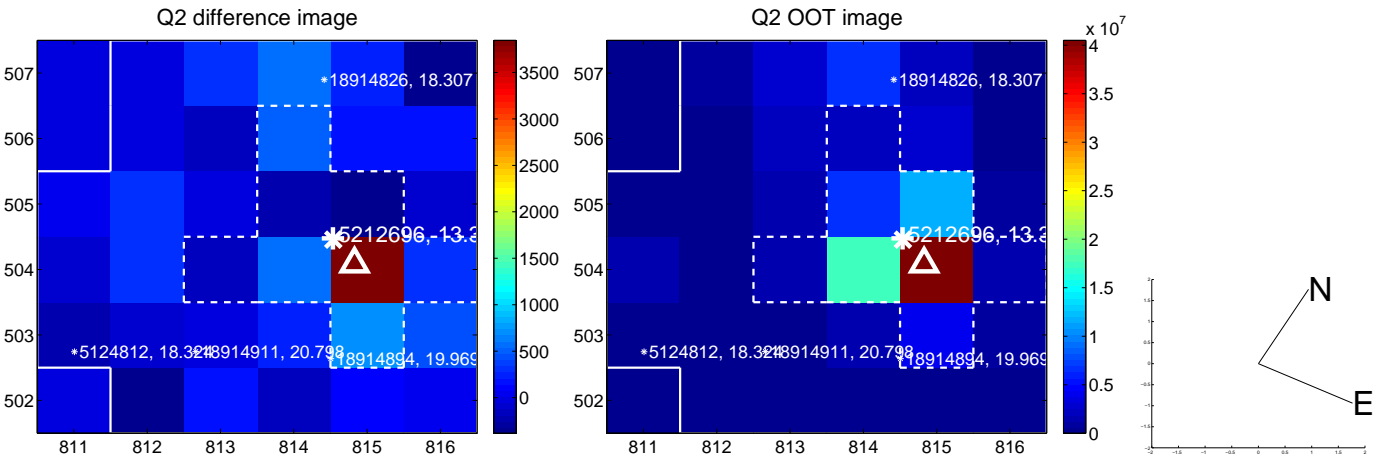
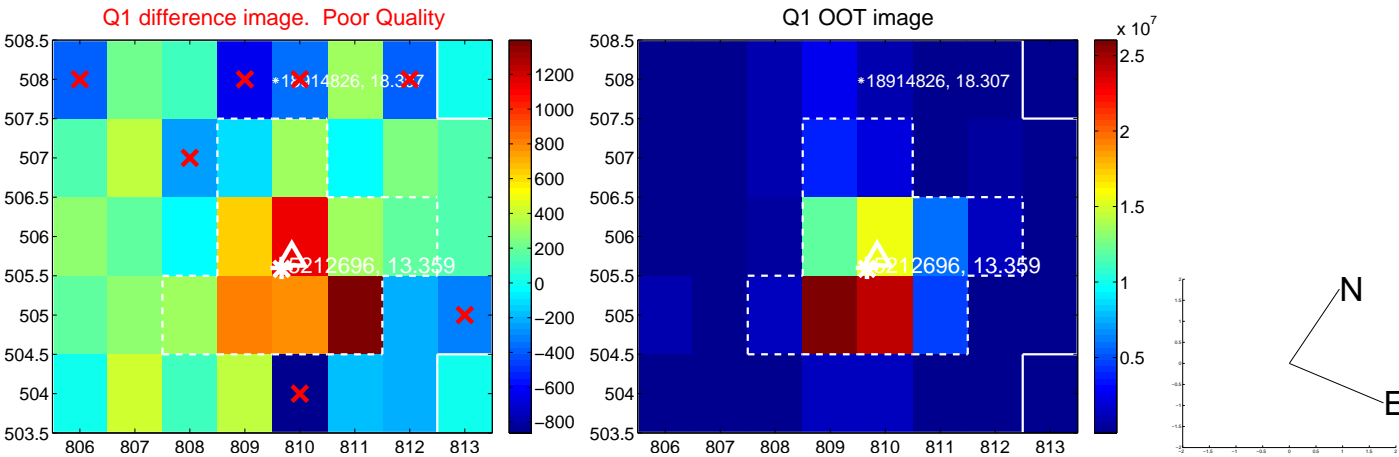


offset from photometric centroids

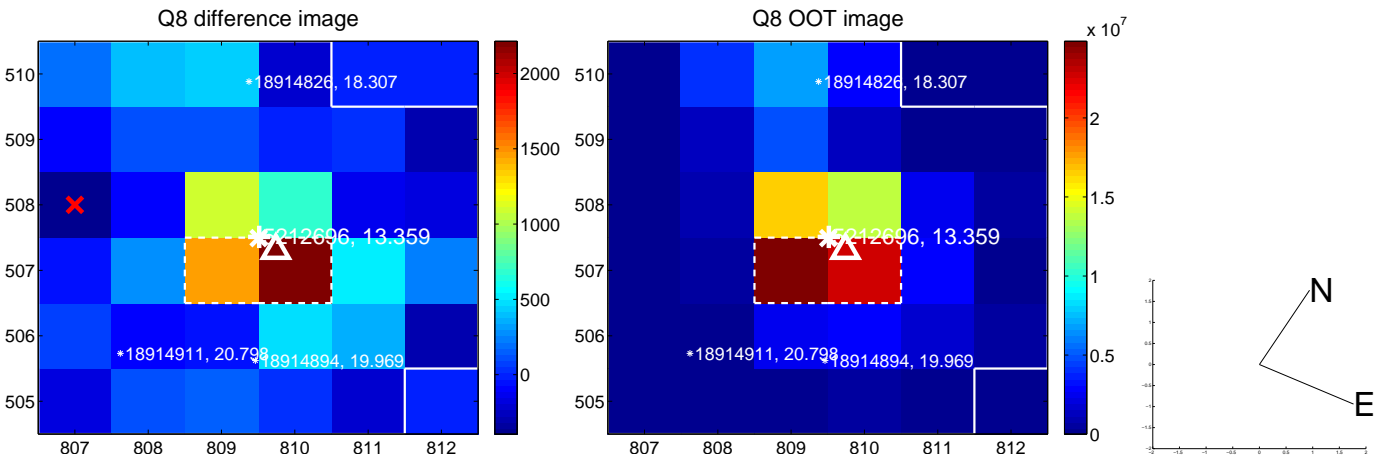
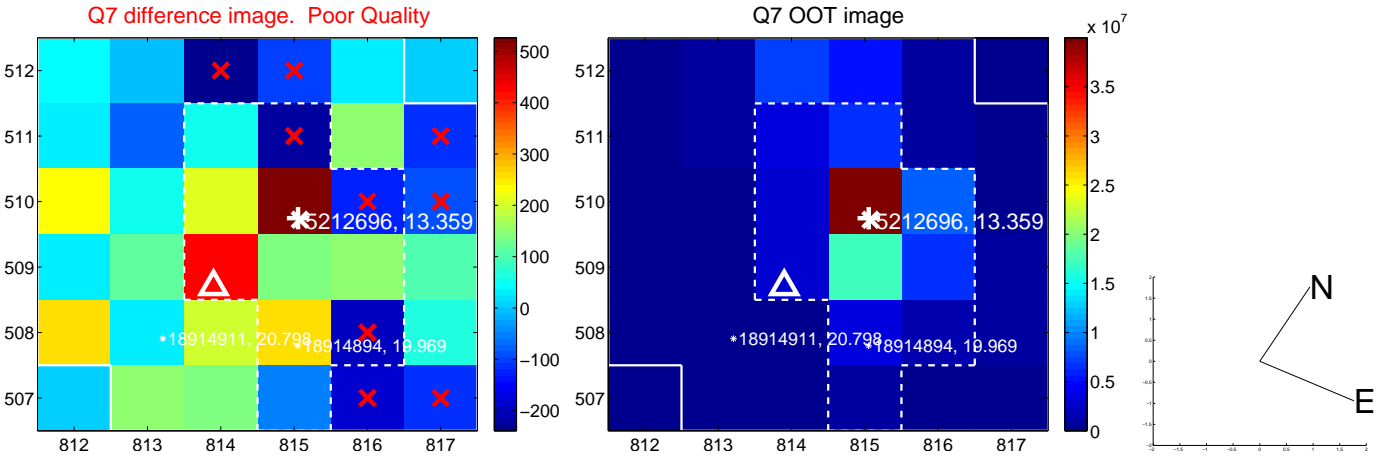
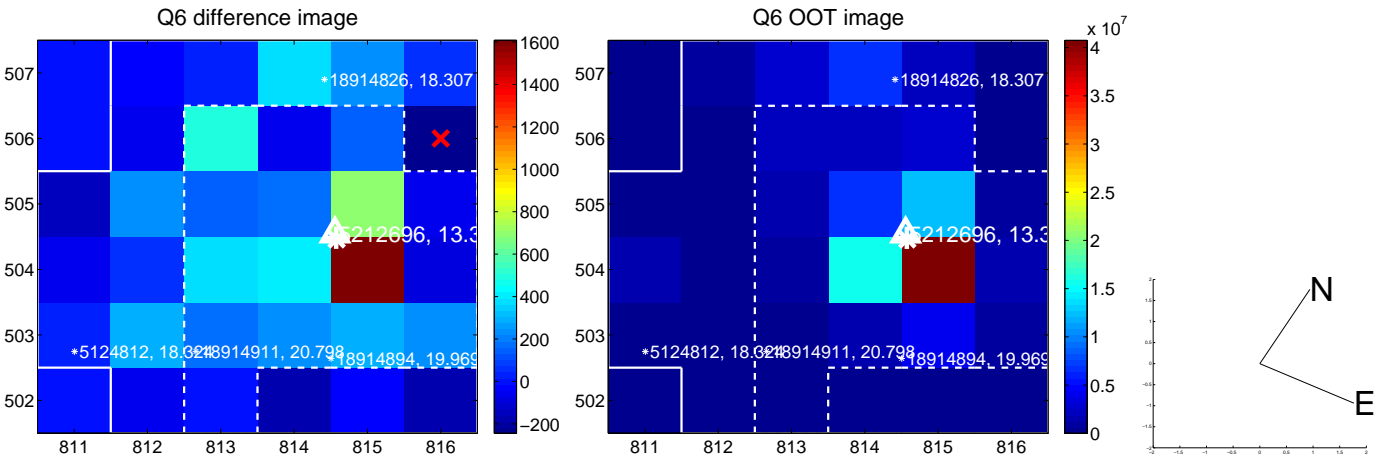
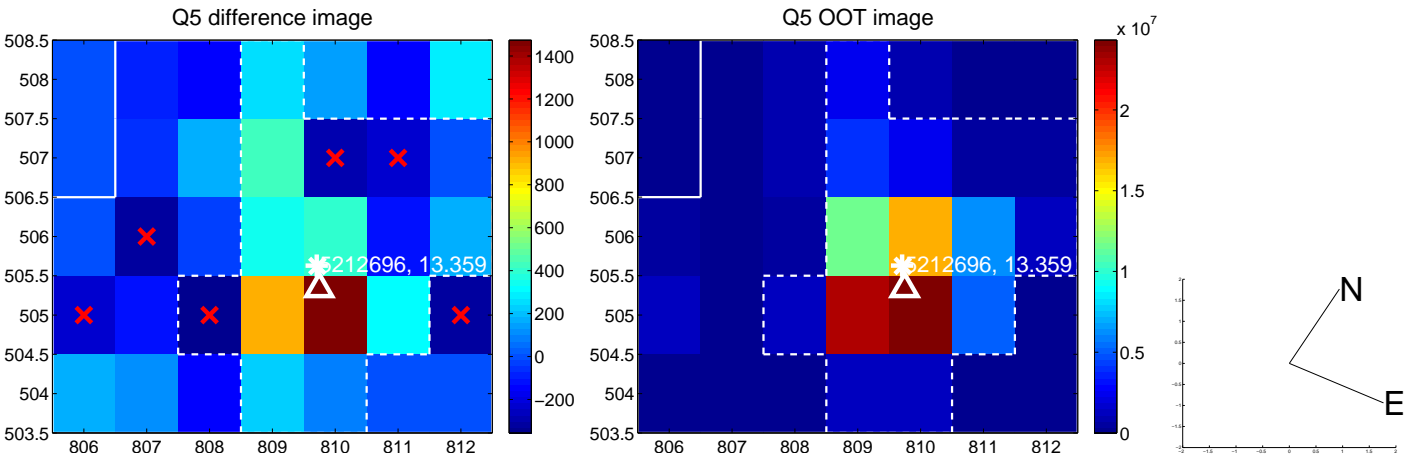


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

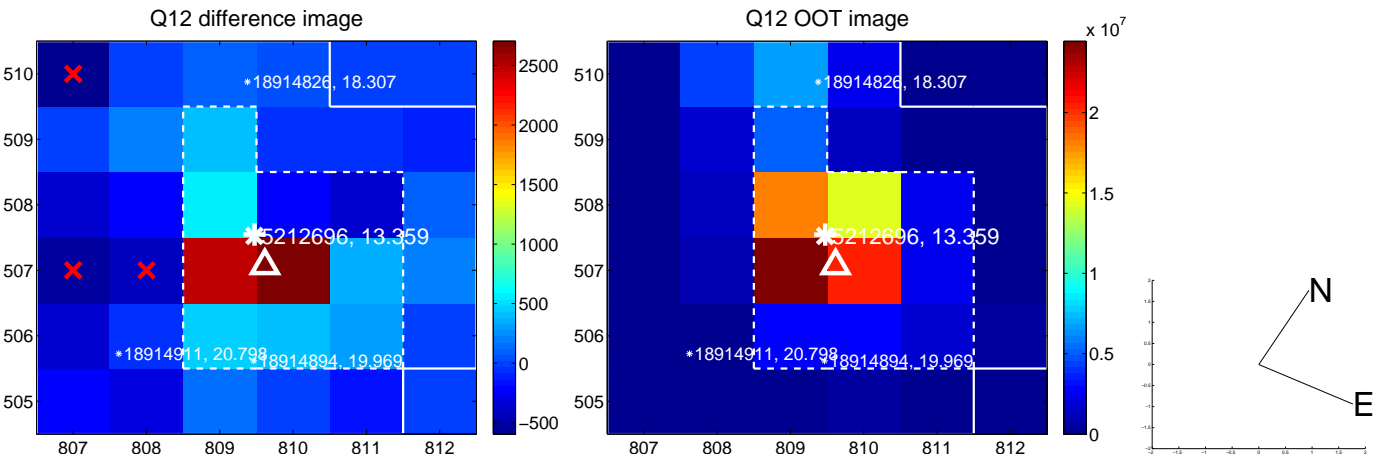
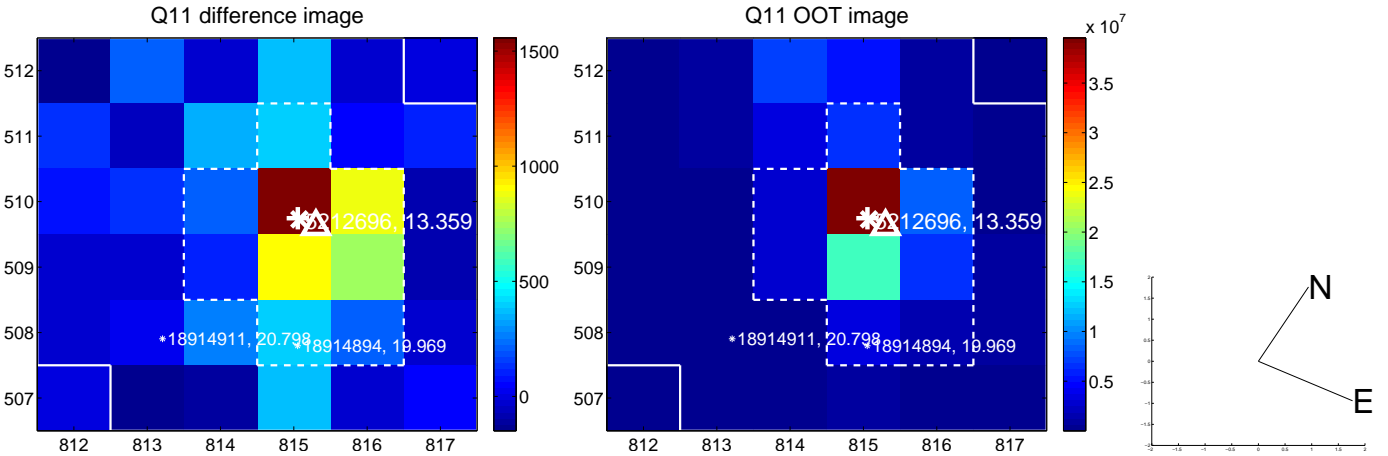
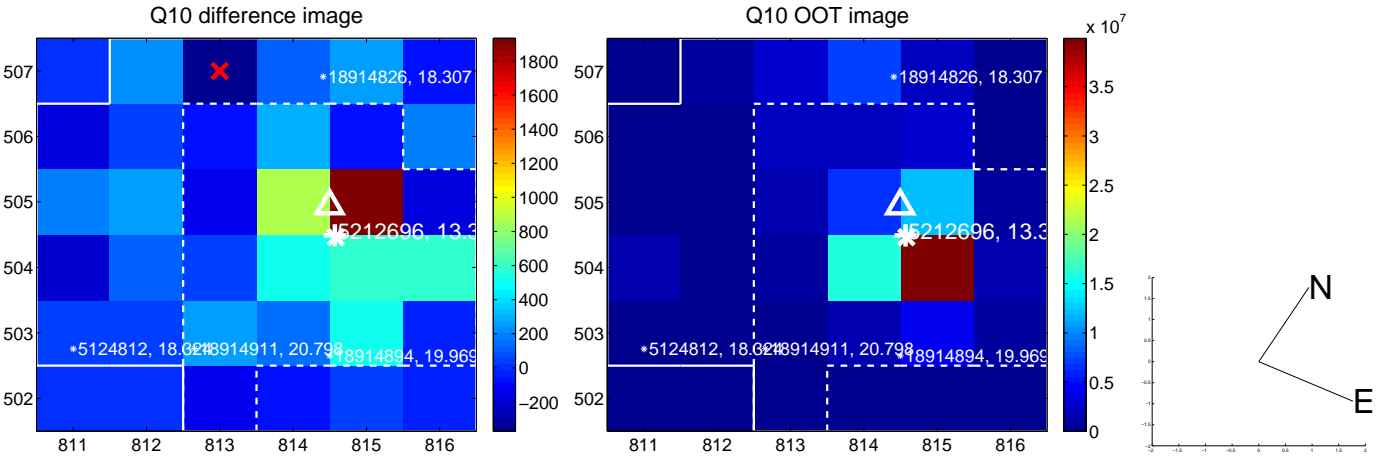
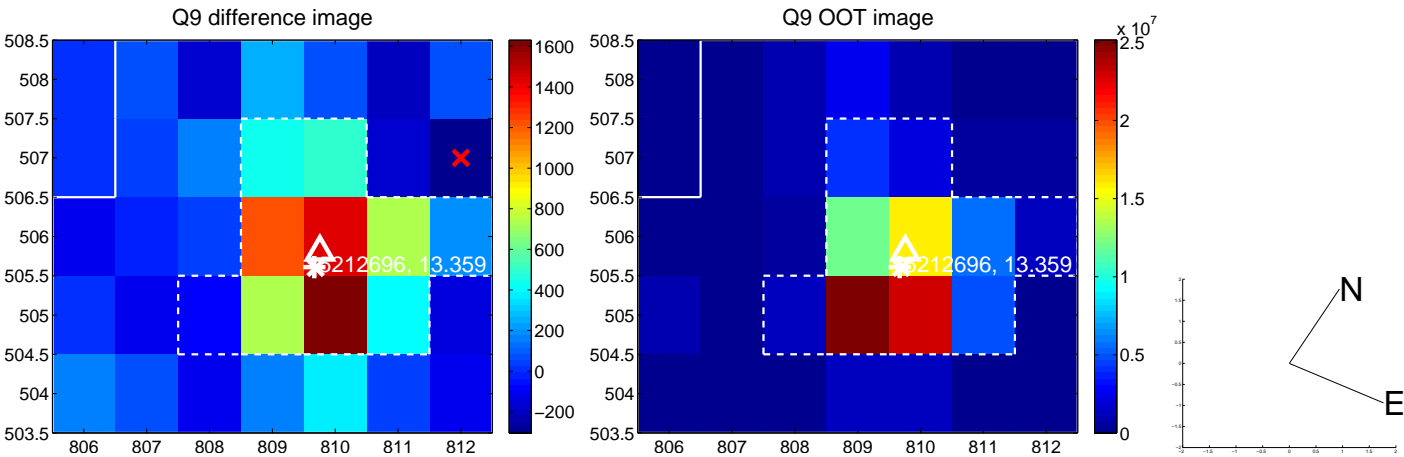
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



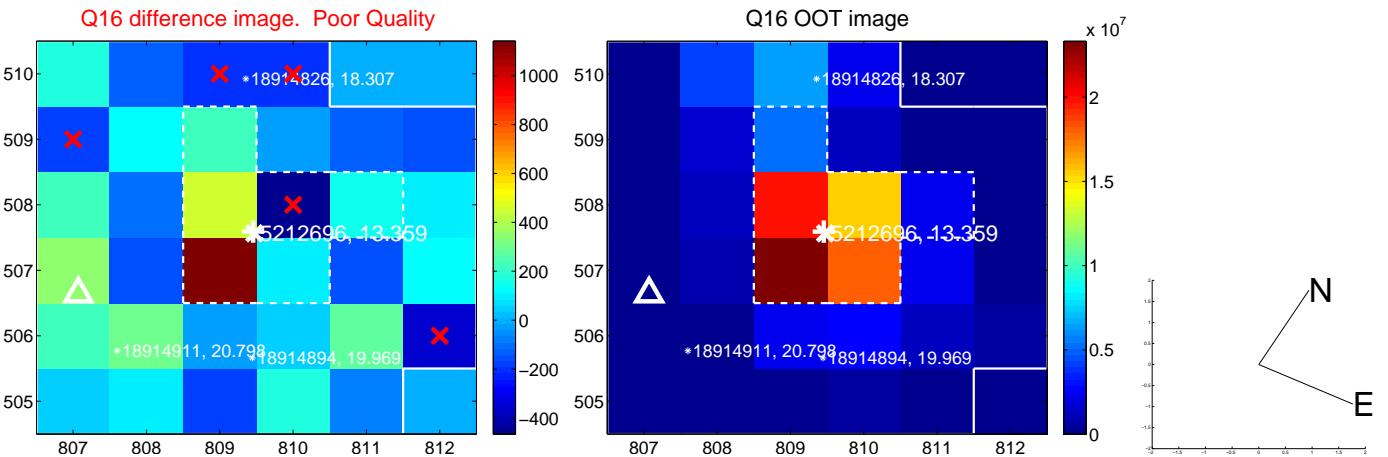
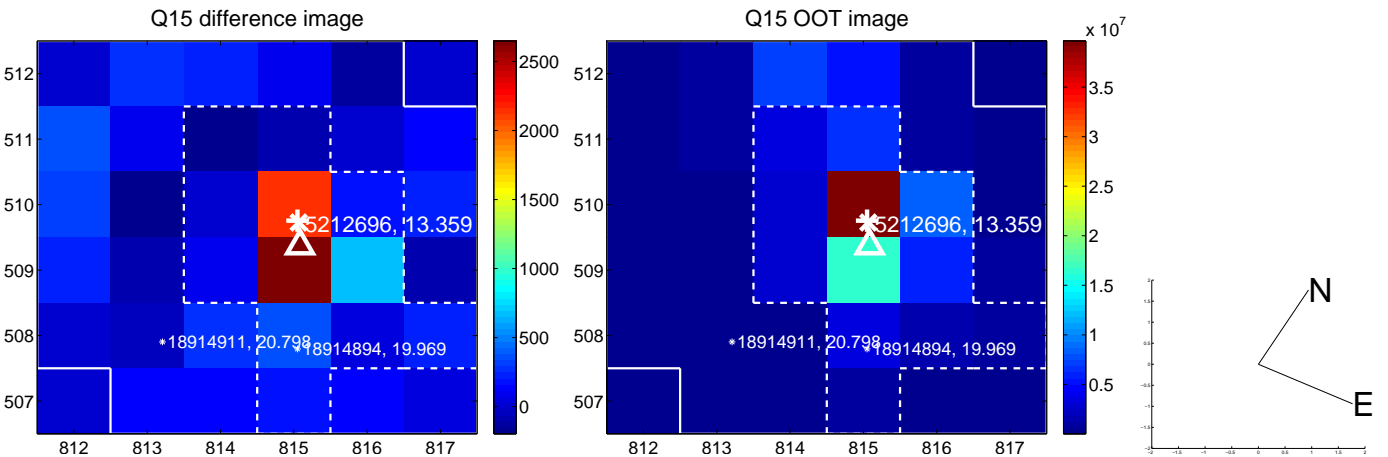
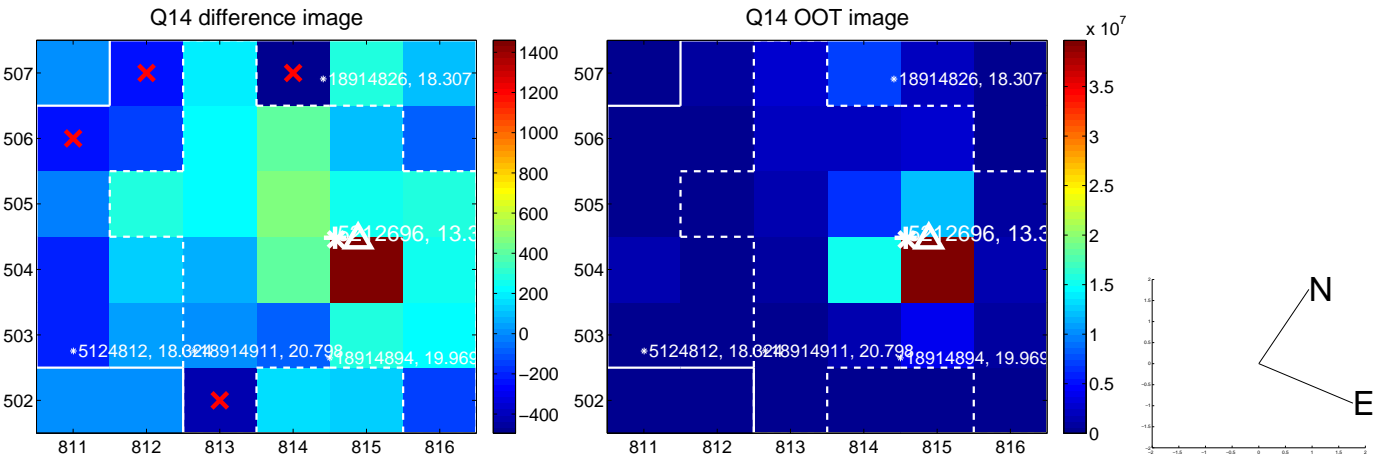
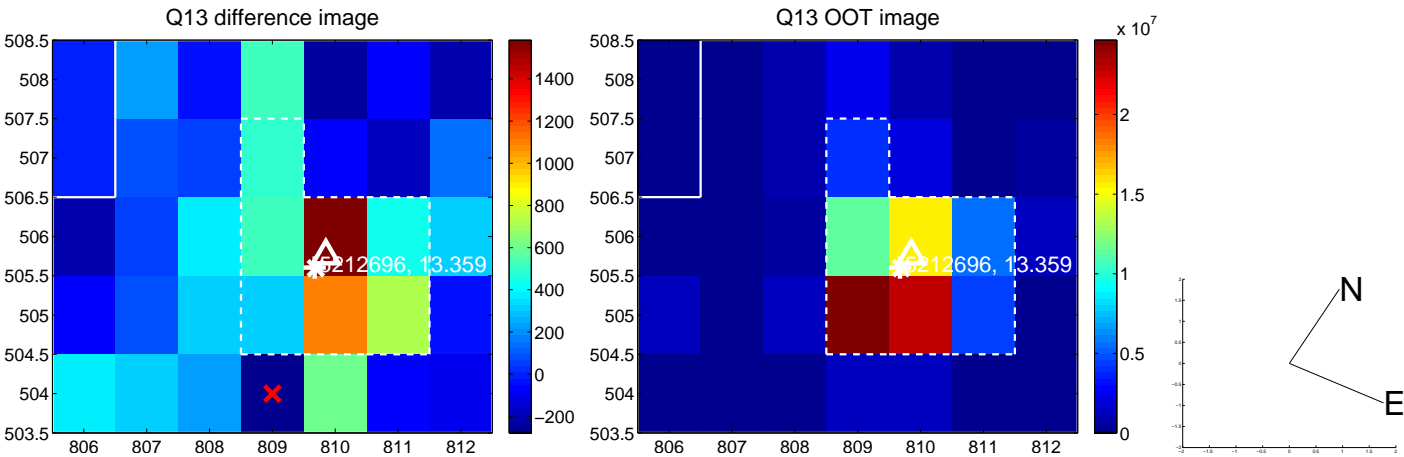
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



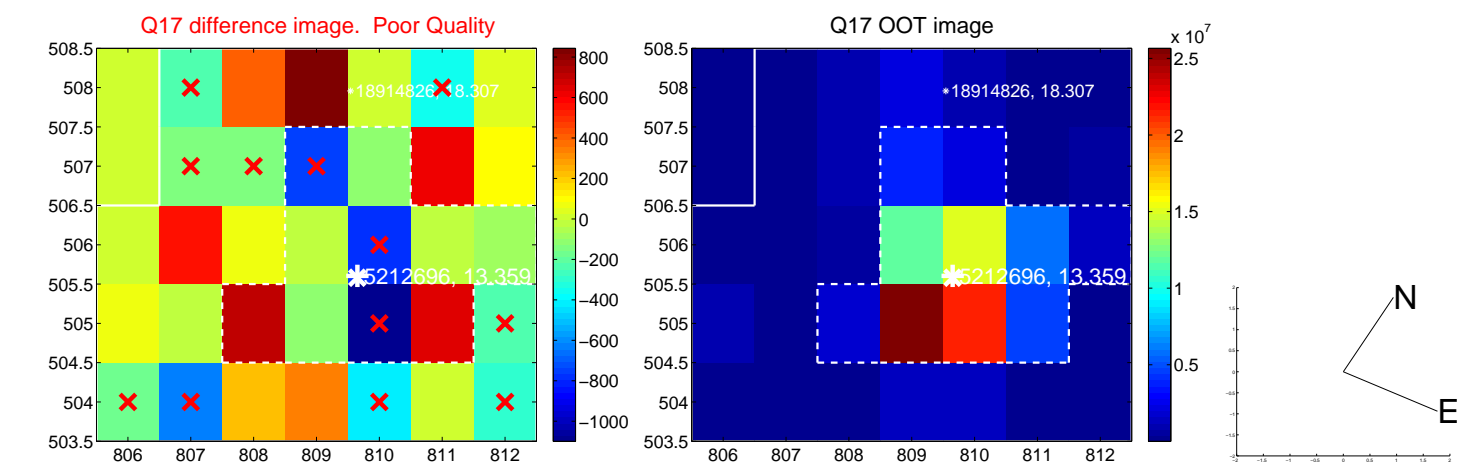
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



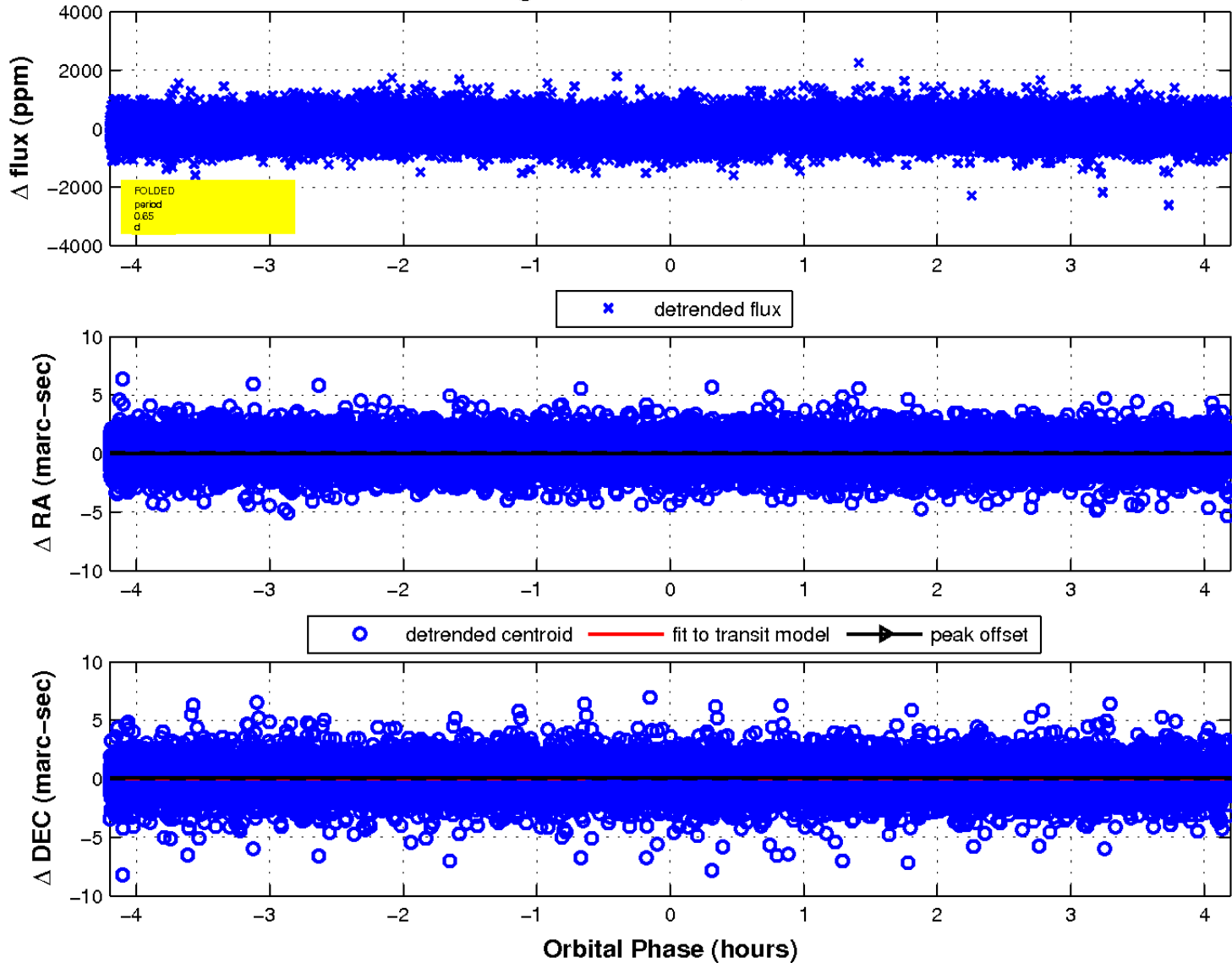
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

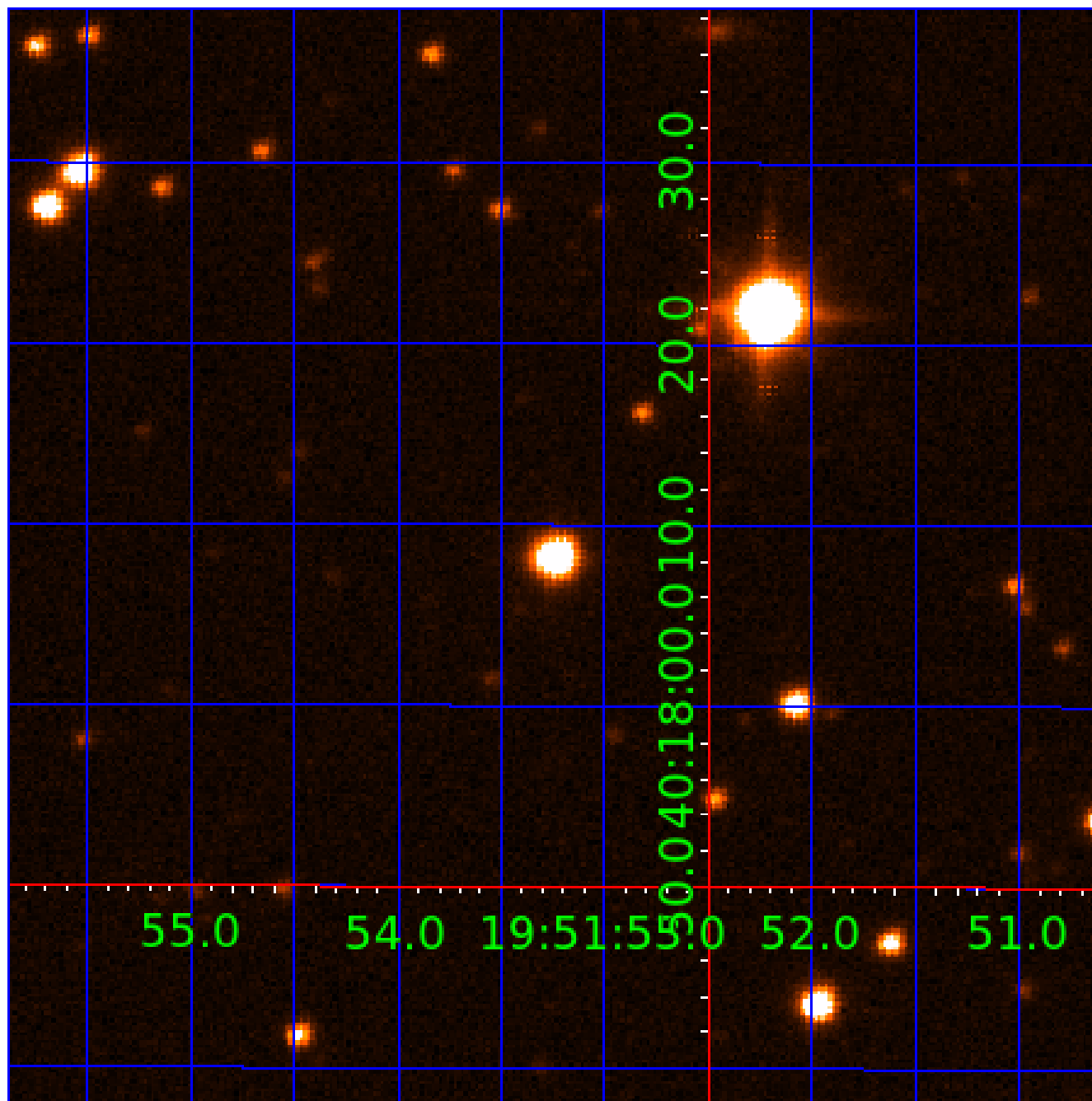


fluxWeightedCentroids, Planet 2 of 5



UKIRT Image

Declination



KIC 005212696

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})
005212696-01	OBS	No	0.653332	131.914297	65.6	1.353	10.2	11.1	1.84	7696	1.78	34752.64
005212696-02	OBS	No	0.653320	131.763094	66.8	1.399	10.3	11.6	1.84	7696	1.75	34753.47
005212696-03	OBS	No	0.653318	132.089907	60.4	1.599	9.5	11.4	1.84	7696	1.66	34753.64
005212696-04	OBS	No	25.726809	134.227936	496.0	1.705	7.9	6.8	1.84	7696	4.76	259.41
005212696-05	OBS	No	34.711445	165.876923	722.0	2.306	7.8	7.1	1.84	7696	7.88	174.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005212696-01	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—HALO_GHOST
005212696-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD
005212696-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—SAME_NTL_PERIOD
005212696-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
005212696-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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

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

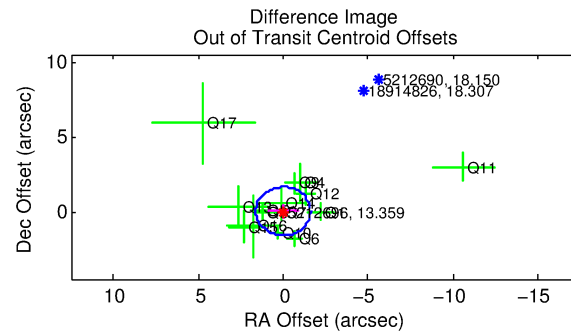
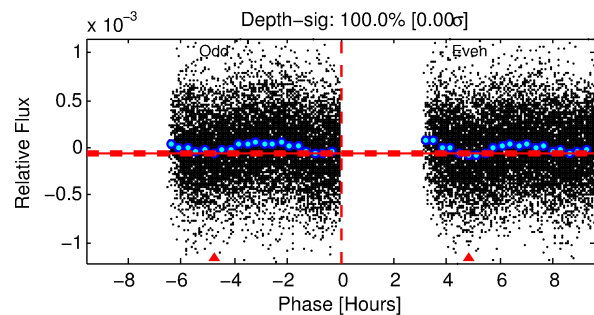
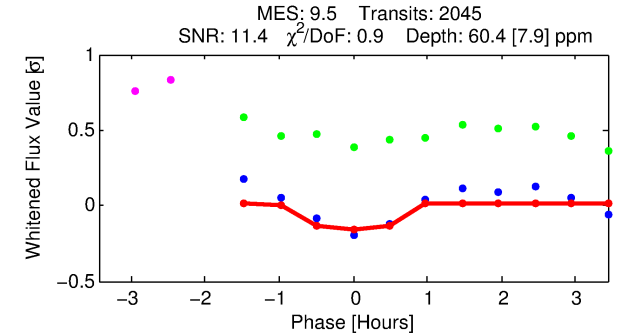
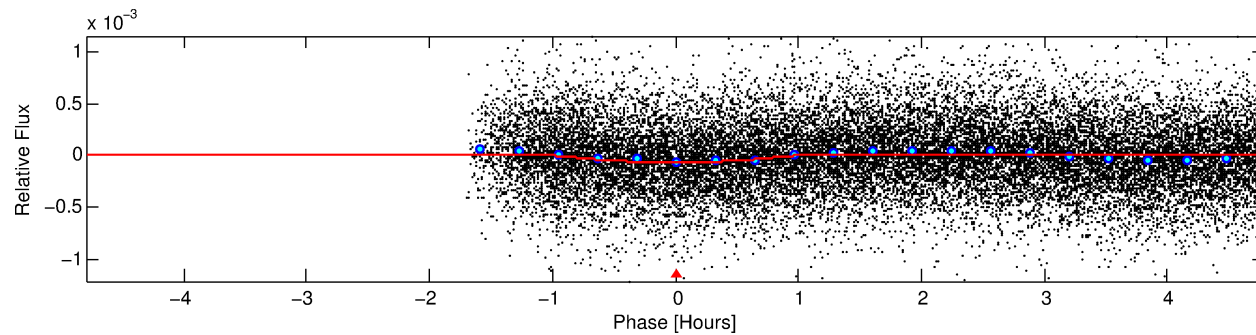
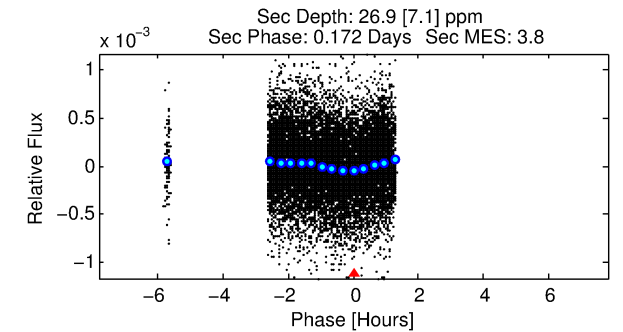
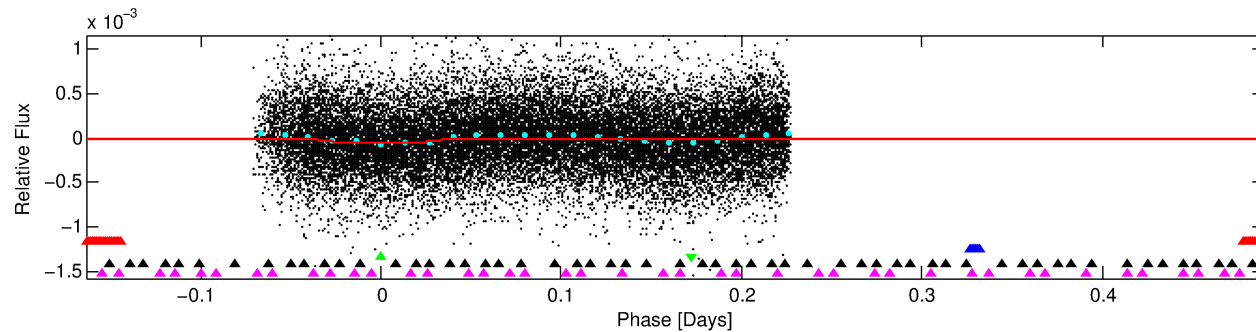
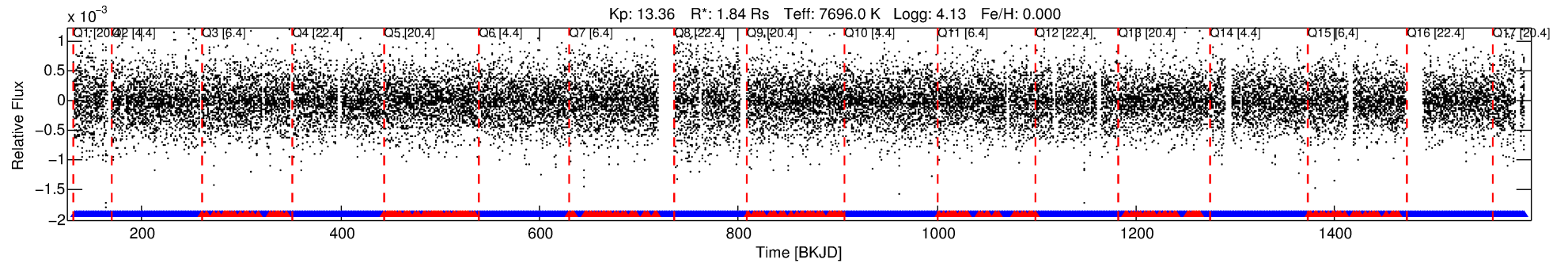
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005212696-03

No Significant Match Found

DV One-Page Summary

KIC: 5212696 Candidate: 3 of 5 Period: 0.653 d



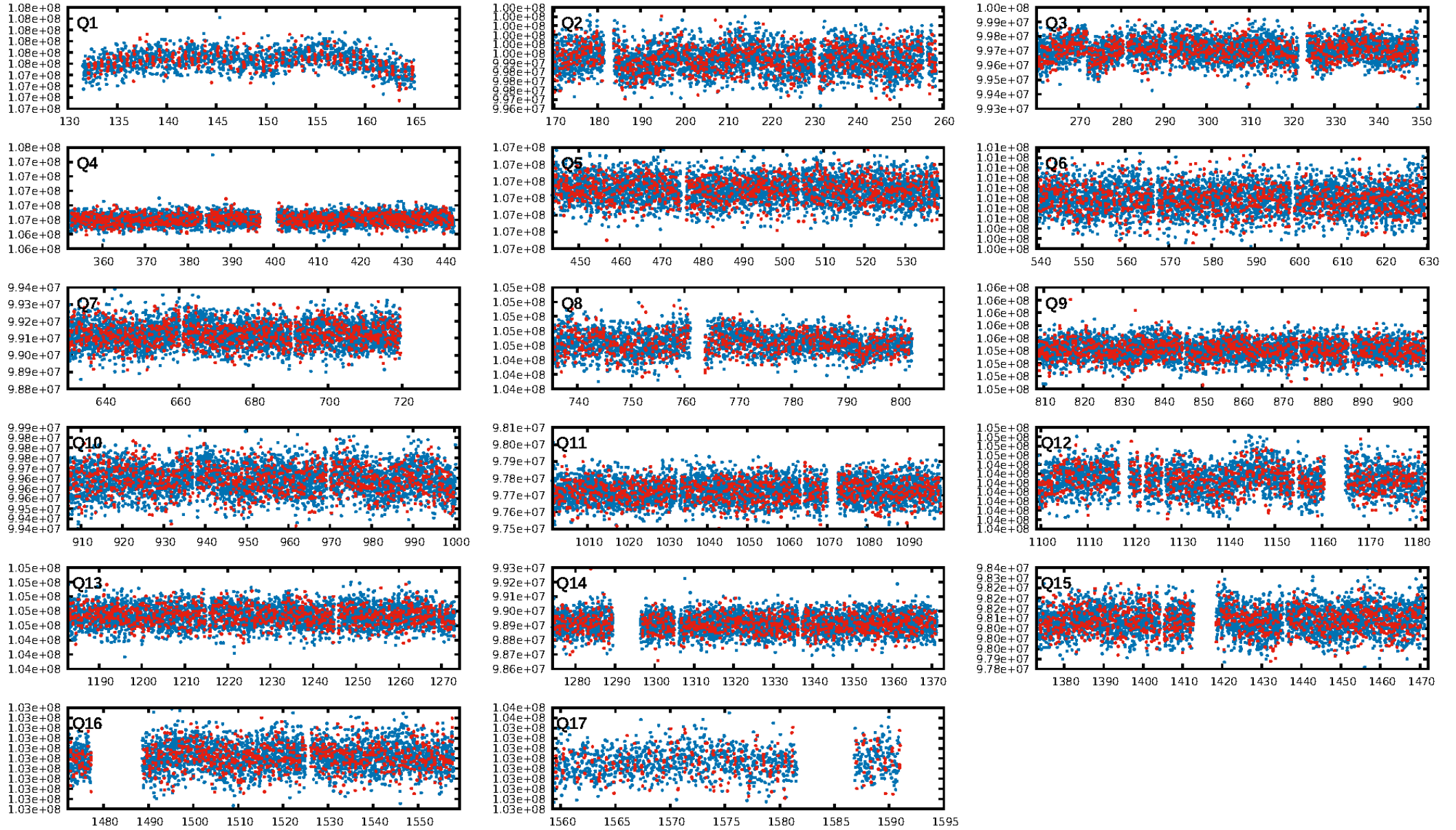
DV Fit Results:

Period = 0.65332 [0.00001] d
Epoch = 132.0899 [0.0017] BKJD
Rp/R* = 0.0083 [0.0027]
a/R* = 1.70 [2.41]
b = 0.90 [0.46]
Seff = 34753.64 [12990.47]
Teff = 3482 [325] K
Rp = 1.66 [0.72] Re
a = 0.0175 [0.0041] AU
Ag = 1.65 [1.30] [0.50σ]
Teffp = 6102 [1121] K [2.25σ]

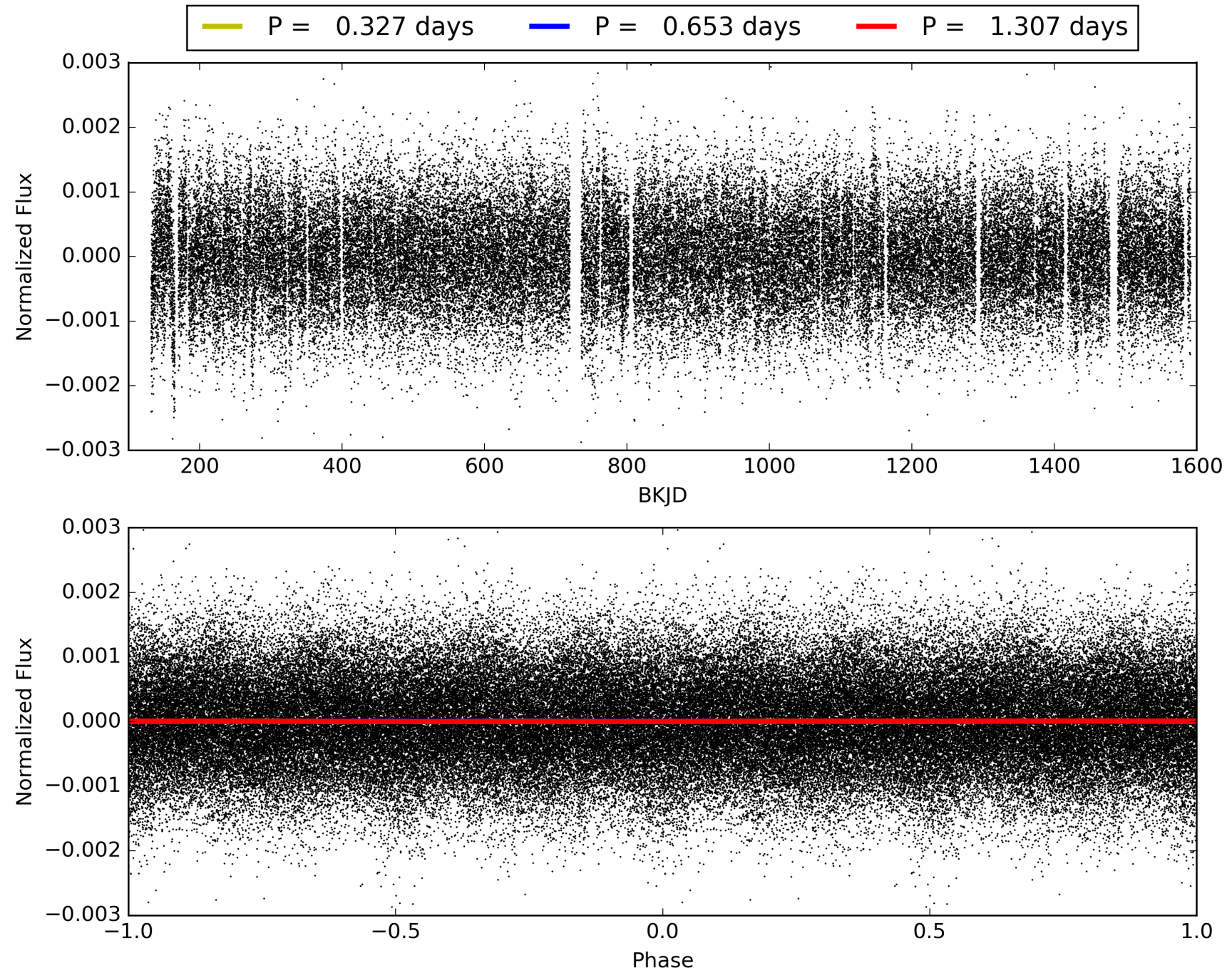
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 9.55e-13
RollingBand-fgt: 0.88 [1719/1954]
GhostDiagnostic-chr: 0.4456
Centroid-sig: 66.5%
Centroid-so: 0.181 arcsec [0.35σ]
OotOffset-rm: 0.021 arcsec [0.04σ]
KicOffset-rm: 0.108 arcsec [0.13σ]
OotOffset-st: 3/3/4/5 [15]
KicOffset-st: 3/3/4/5 [15]
DiffImageQuality-fgm: 0.47 [7/15]
DiffImageOverlap-fno: 0.00 [0/17]

TCE 005212696-03, PDC Light Curves

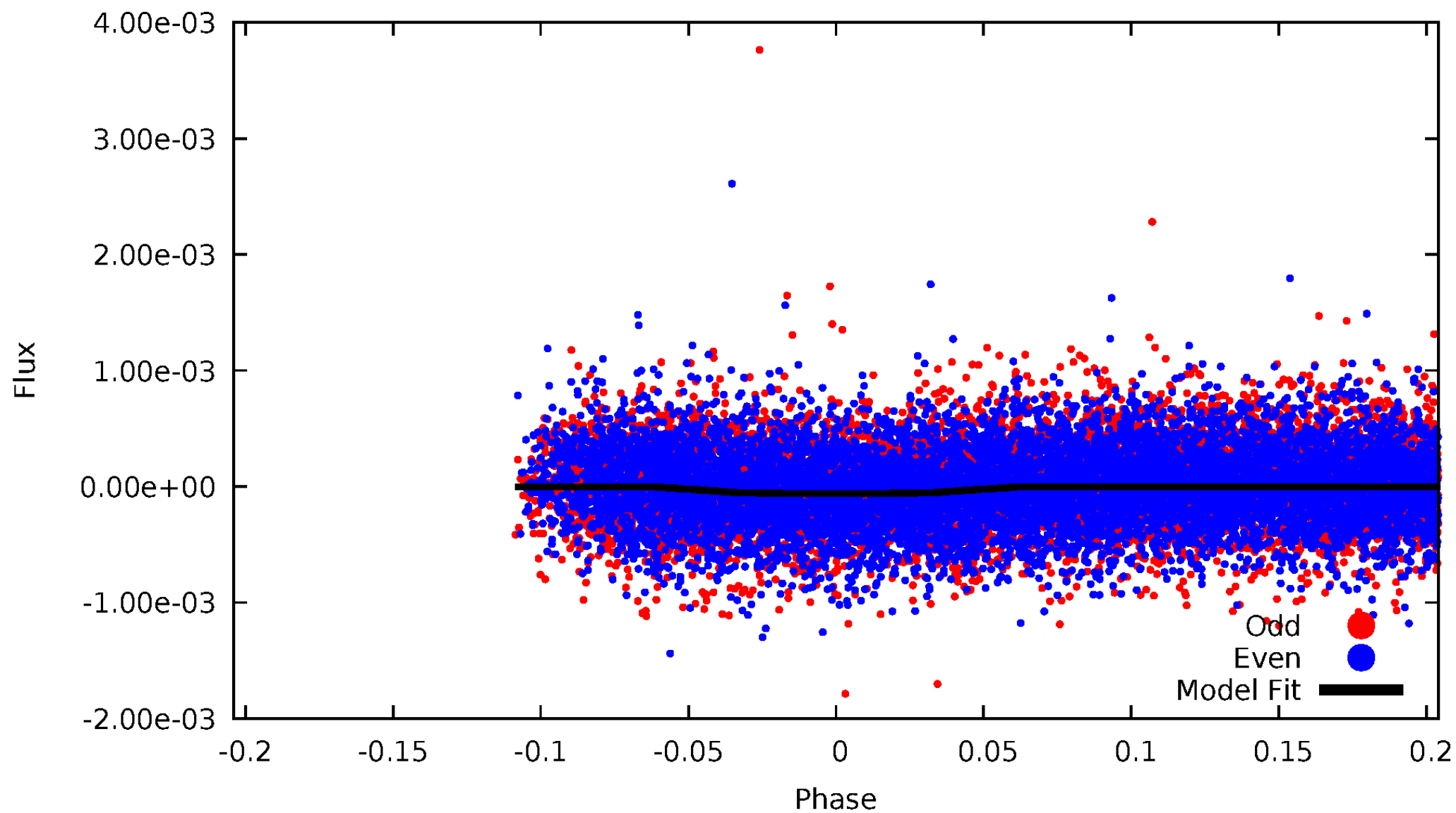


TCE 005212696-03



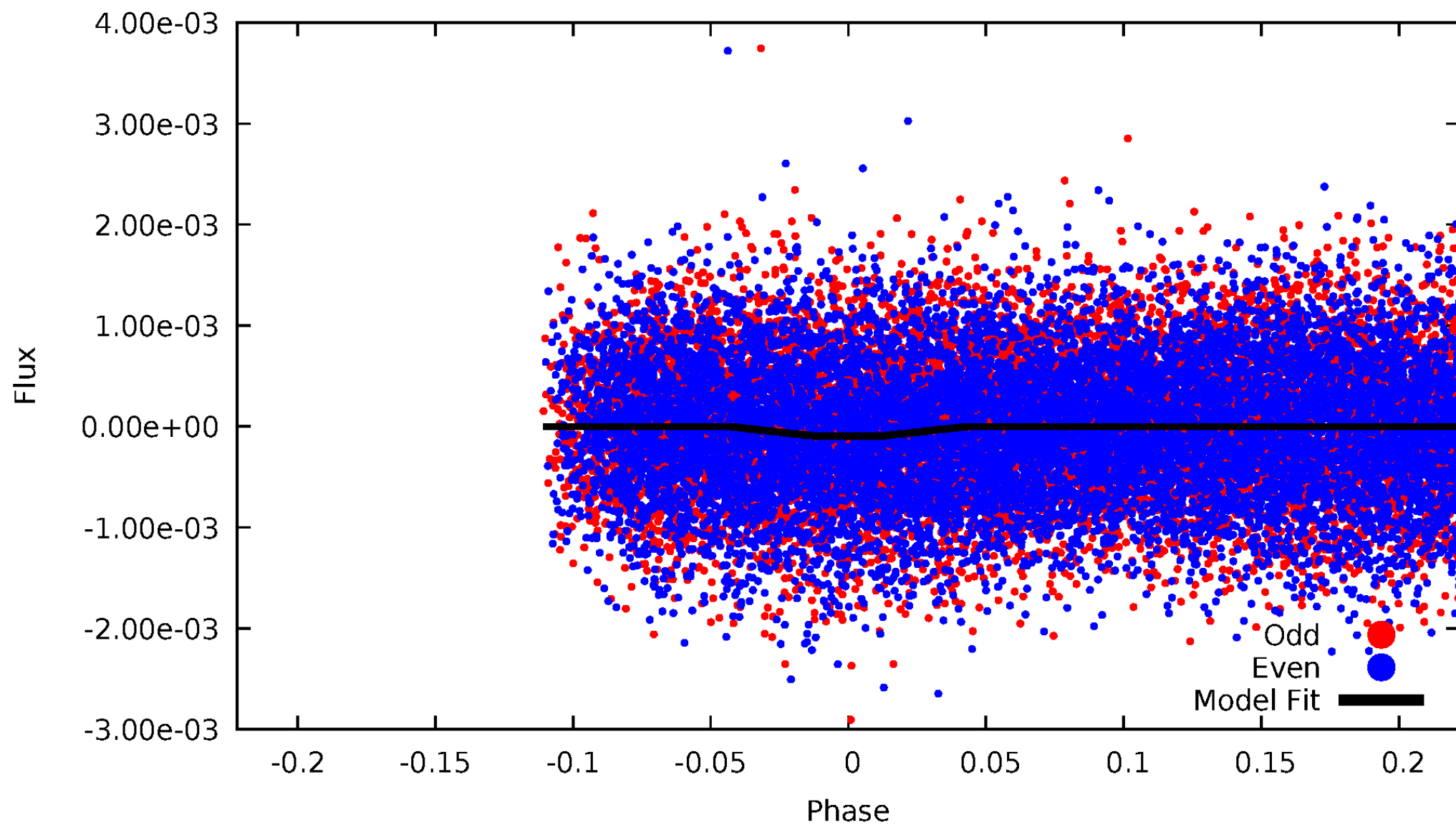
DV Odd/Even

TCE 005212696-03



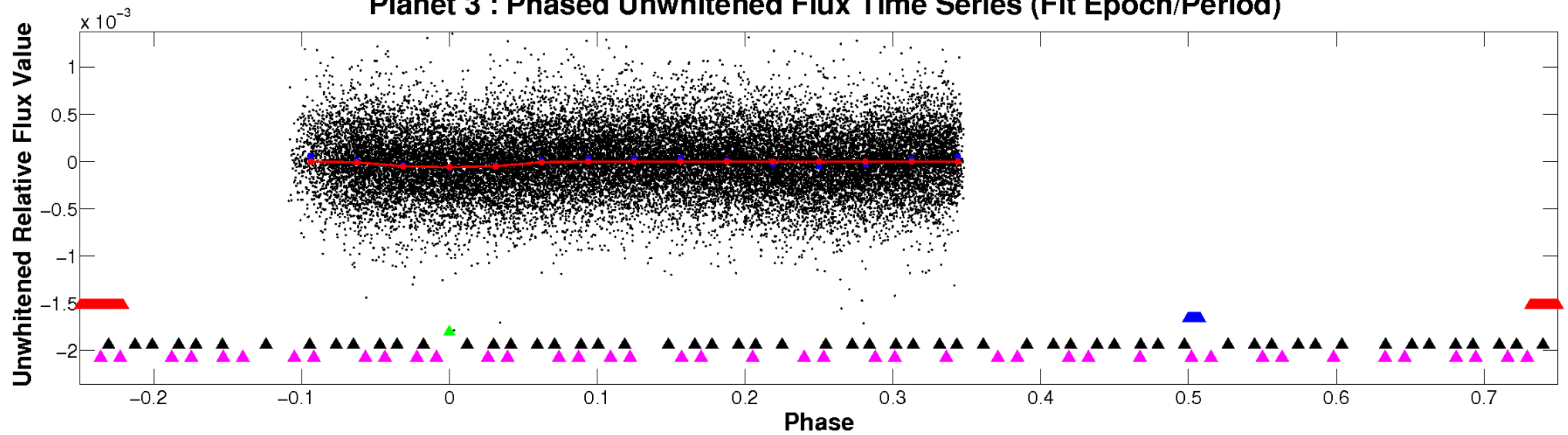
ALT Odd/Even

TCE 005212696-03

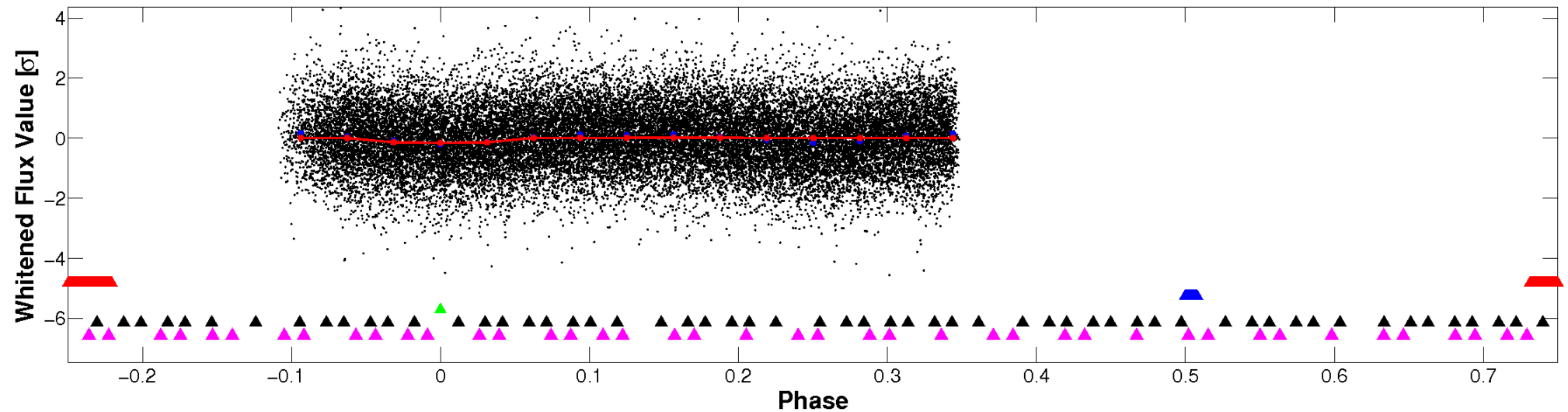


Non-Whitened Vs. Whitened Light Curve

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

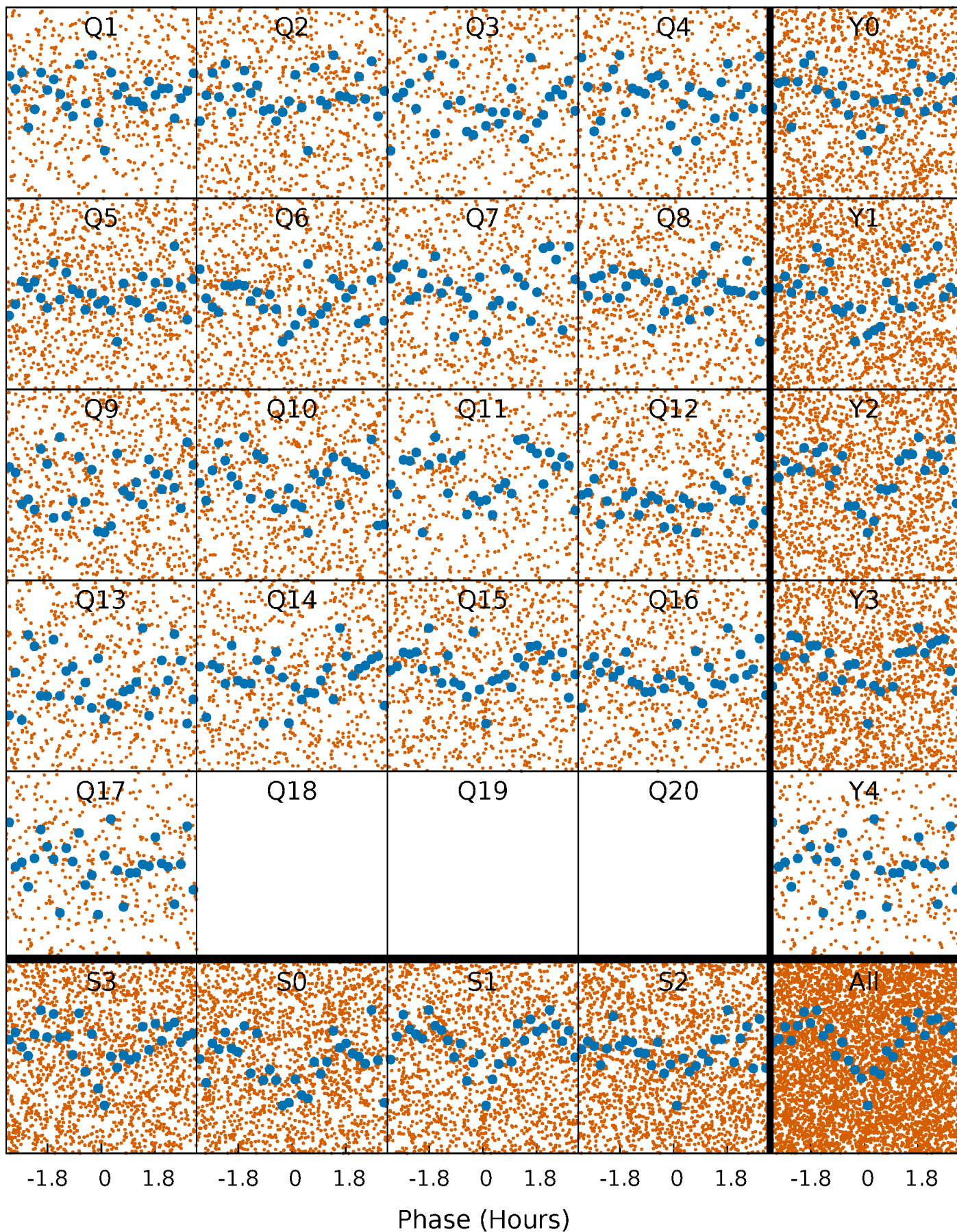


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



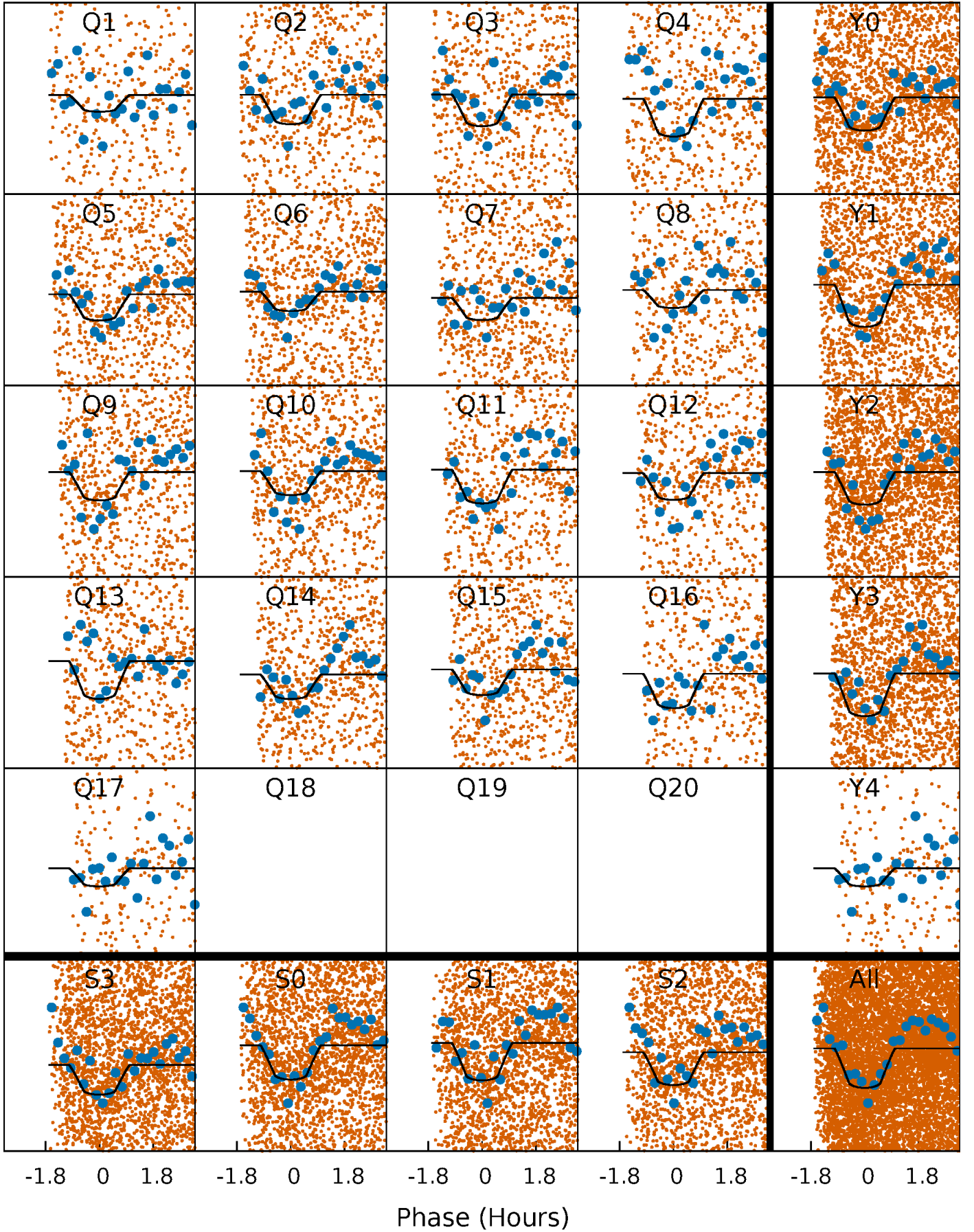
PDC Quarter-Phased Transit Curves

TCE 005212696-03 P= 0.653318 Days $T_0=132.089907$ (BKJD)



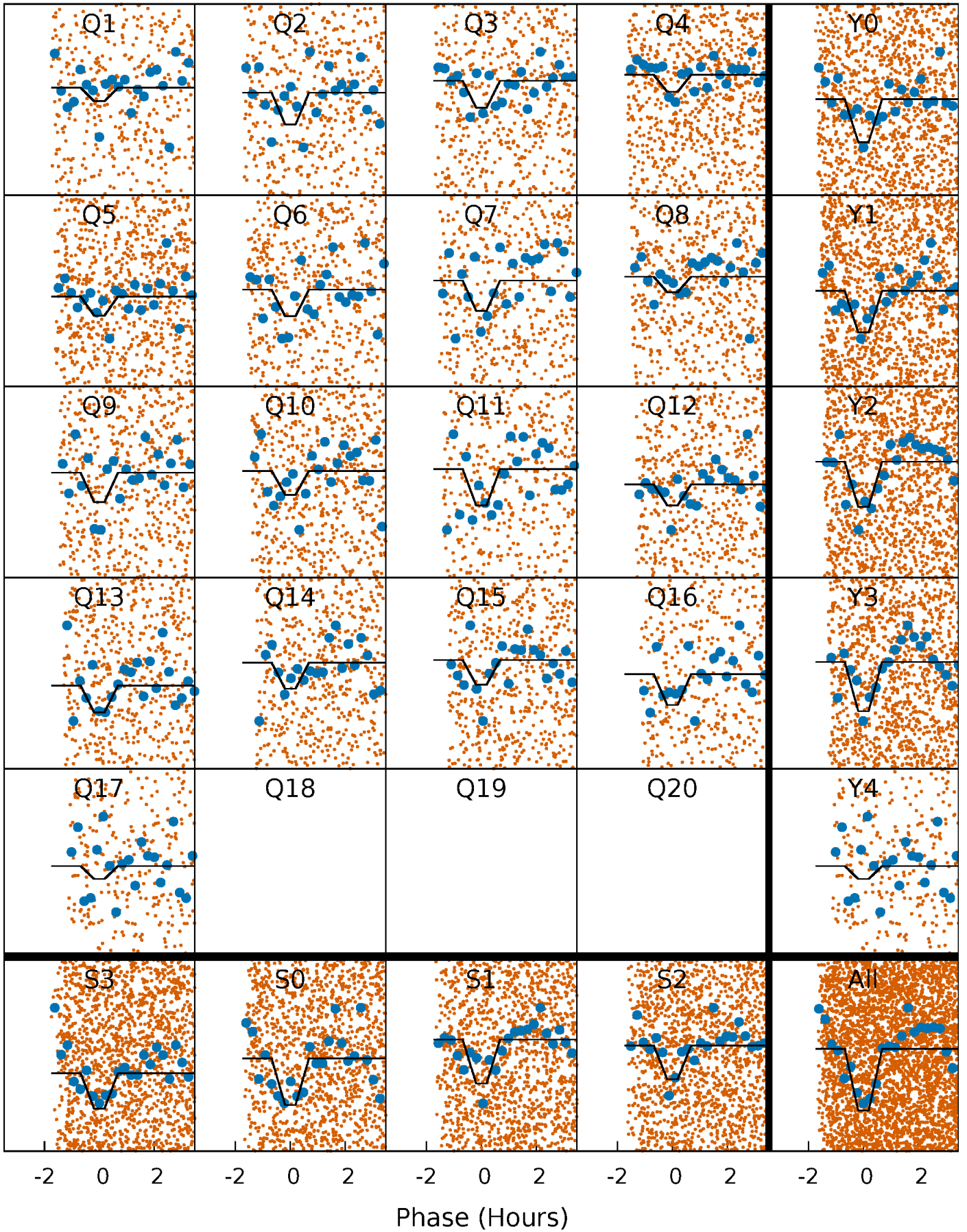
DV Quarter-Phased Transit Curves

TCE 005212696-03 $P = 0.653318$ Days $T_0 = 132.089907$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

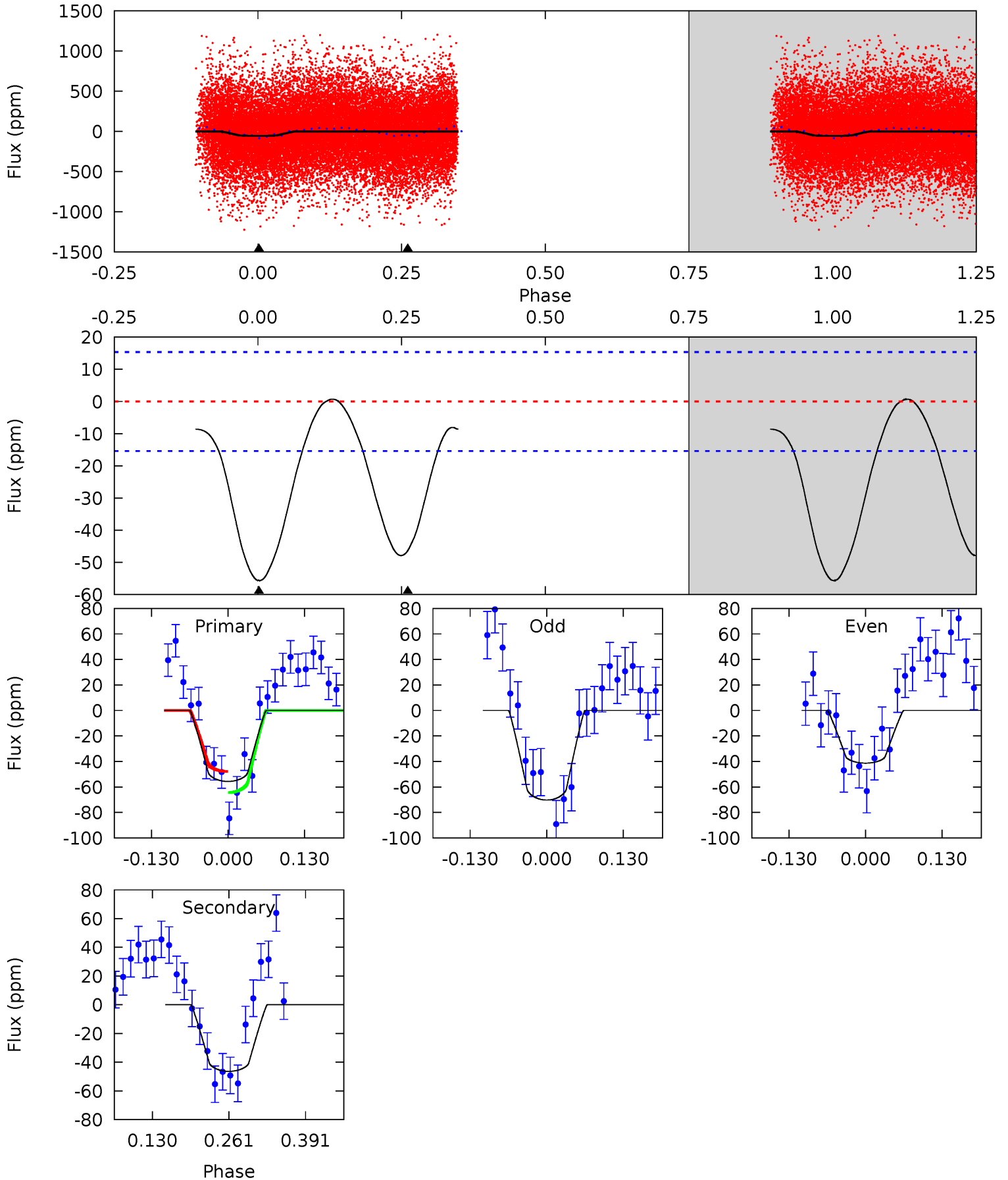
TCE 005212696-03 $P = 0.653320$ Days $T_0 = 132.091263$ (BKJD)



DV Model-Shift Uniqueness Test

005212696-03, P = 0.653318 Days, E = 131.436589 Days

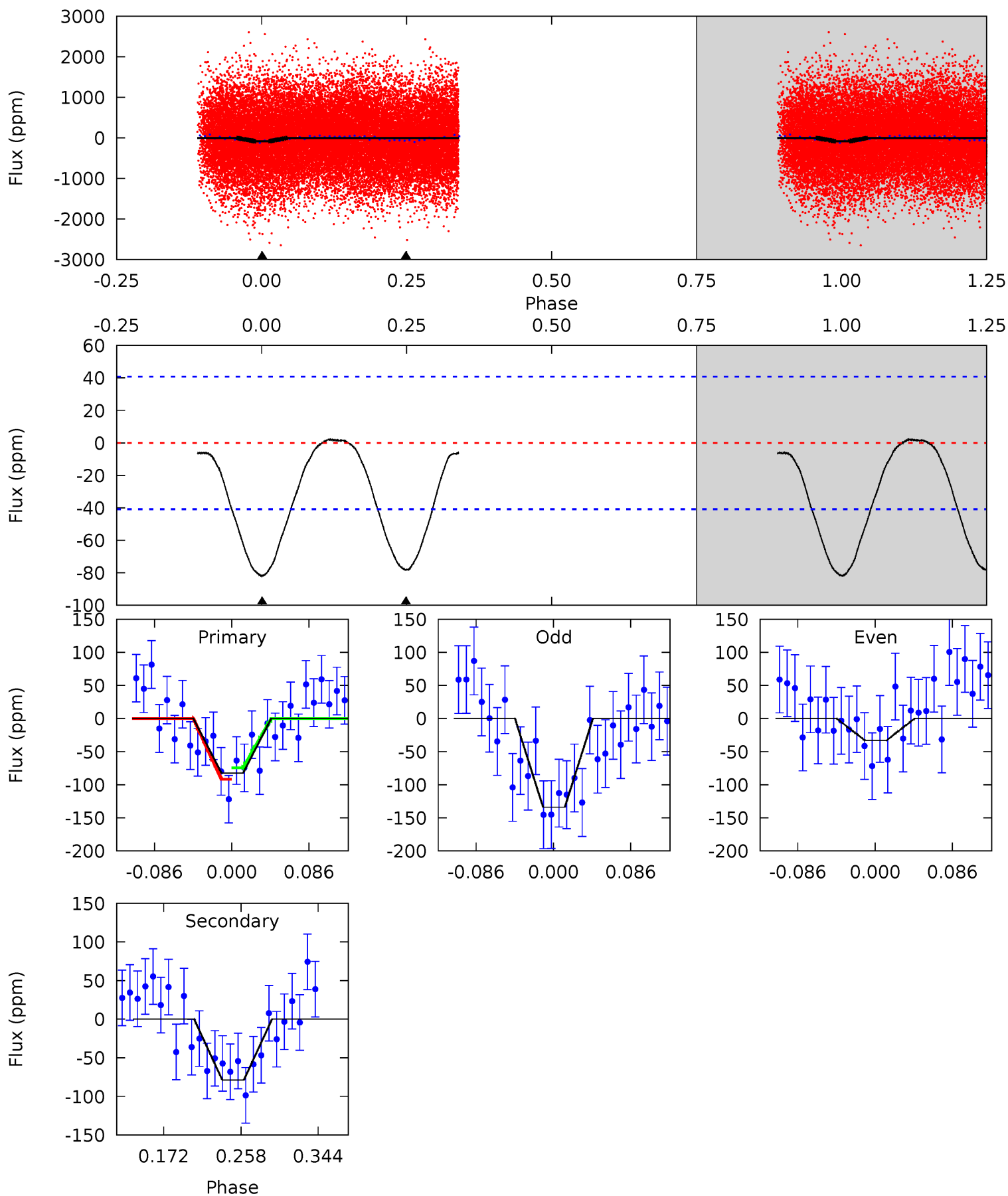
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.3	13.6	0	0	4.51	1.51	0.31	16.3	16.3	13.6	13.6	4.26	1.02	0.01	2.40



Alt Model-Shift Uniqueness Test

005212696-03, P = 0.653320 Days, E = 131.437943 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.26	8.85	0	0	4.60	1.72	0.35	9.26	9.26	8.85	8.85	5.66	1.19	0.03	0.98



Stellar Parameters For KIC 005212696

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7696^{+214}_{-322}	$4.132^{+0.120}_{-0.180}$	$0.000^{+0.200}_{-0.350}$	$1.840^{+0.519}_{-0.346}$	$1.673^{+0.194}_{-0.267}$	$0.378^{+0.218}_{-0.188}$
	+3%/-4%	+3%/-4%	+inf%/-inf%	+28%/-19%	+12%/-16%	+58%/-50%
Source	KIC0	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 005212696-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-46 ± 3	$1.65^{+0.73}_{-0.53}$	4886^{+365}_{-311}	6619^{+1874}_{-1122}	$2.754^{+3.306}_{-1.410}$
Alt.	-79 ± 9	$2.02^{+0.62}_{-0.63}$	4905^{+352}_{-319}	6978^{+1751}_{-973}	$3.178^{+3.451}_{-1.338}$

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 $A_{\text{obs}} \gg 1.0$

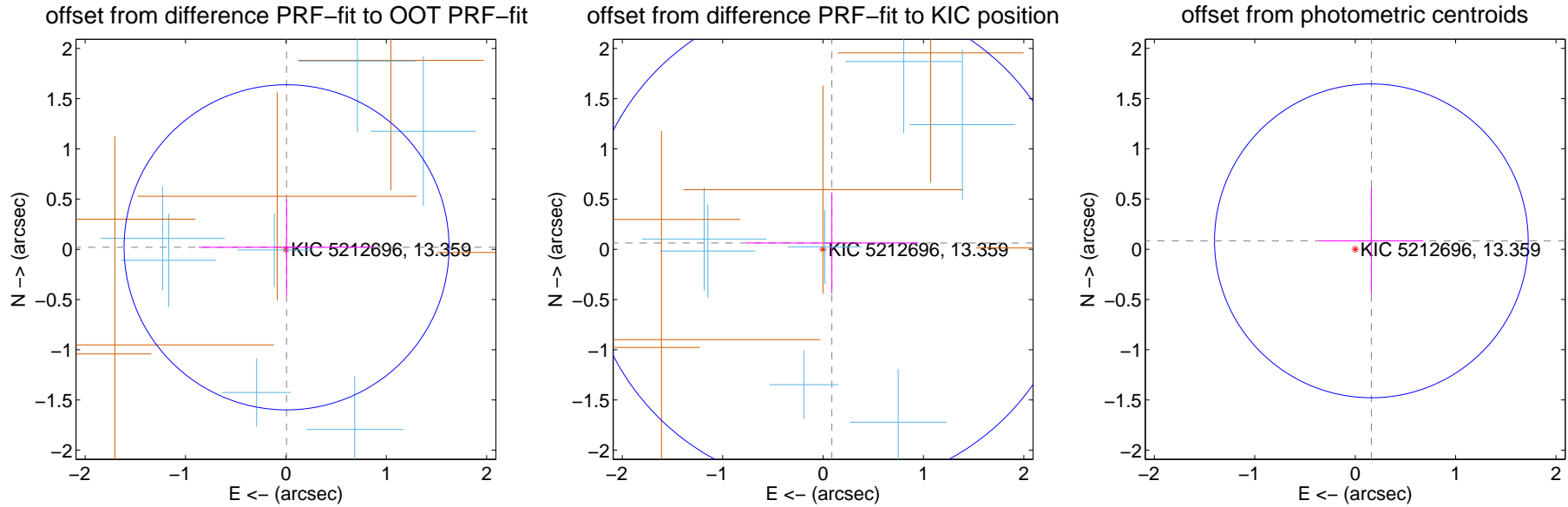
DV Centroid Data

Supplemental centroid analysis for 005212696-03. Kepler magnitude: 13.36. Transit SNR 11.42

There are 7 quarters with good PRF difference image offsets

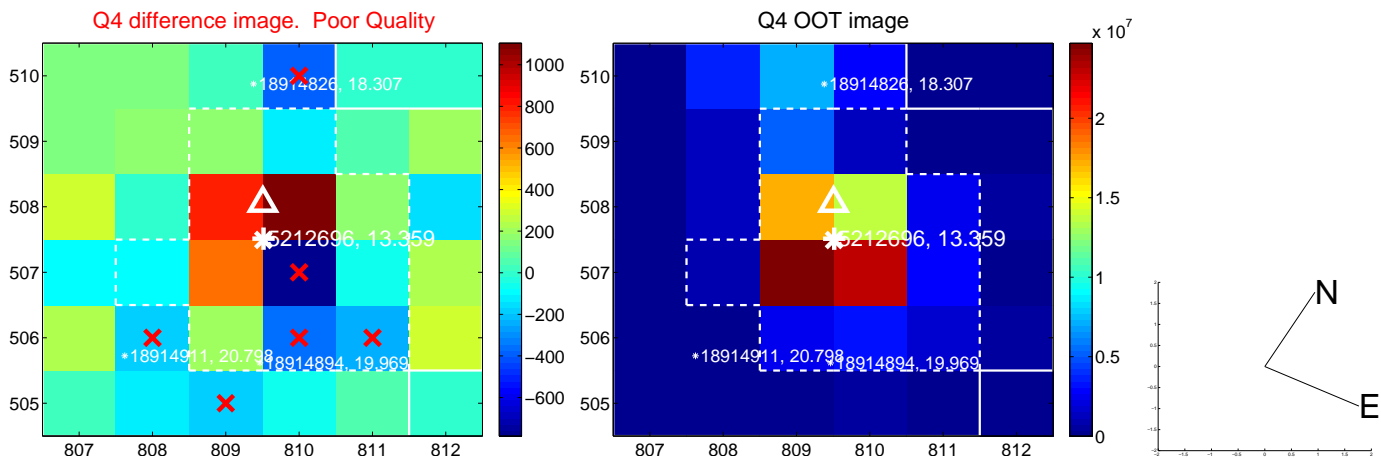
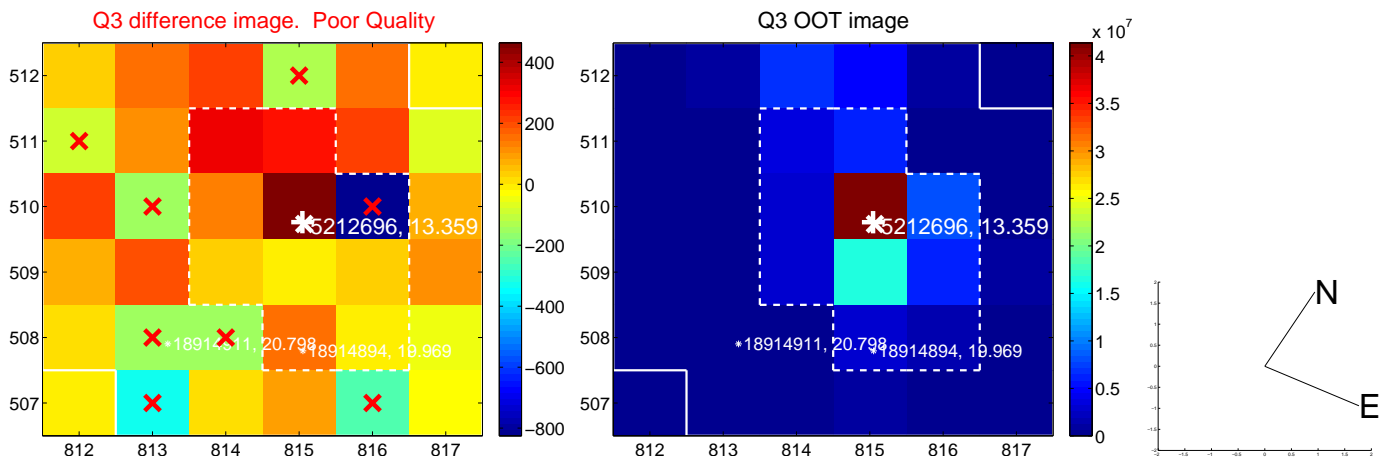
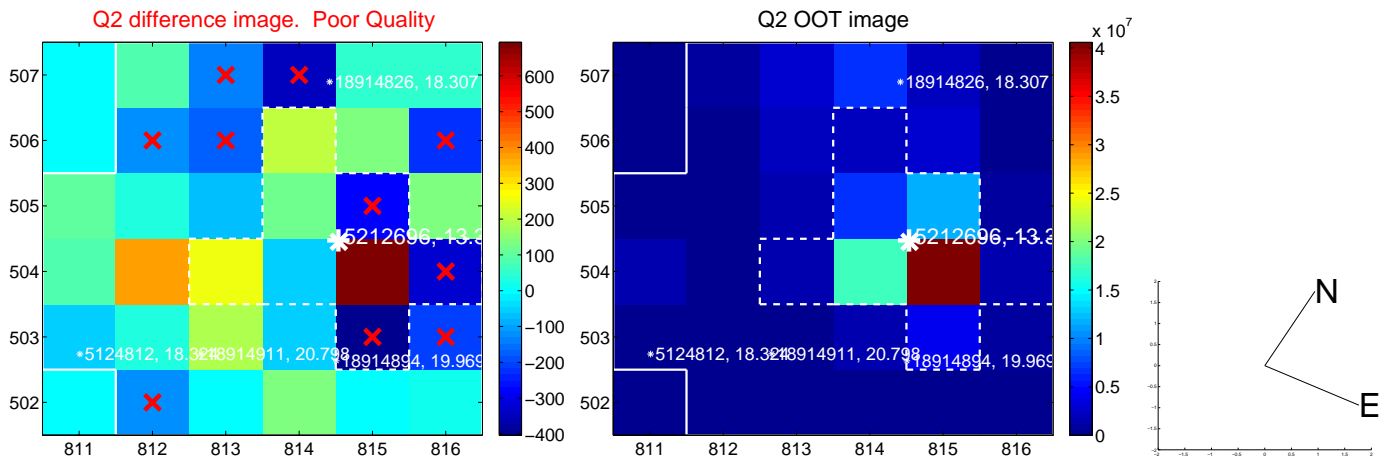
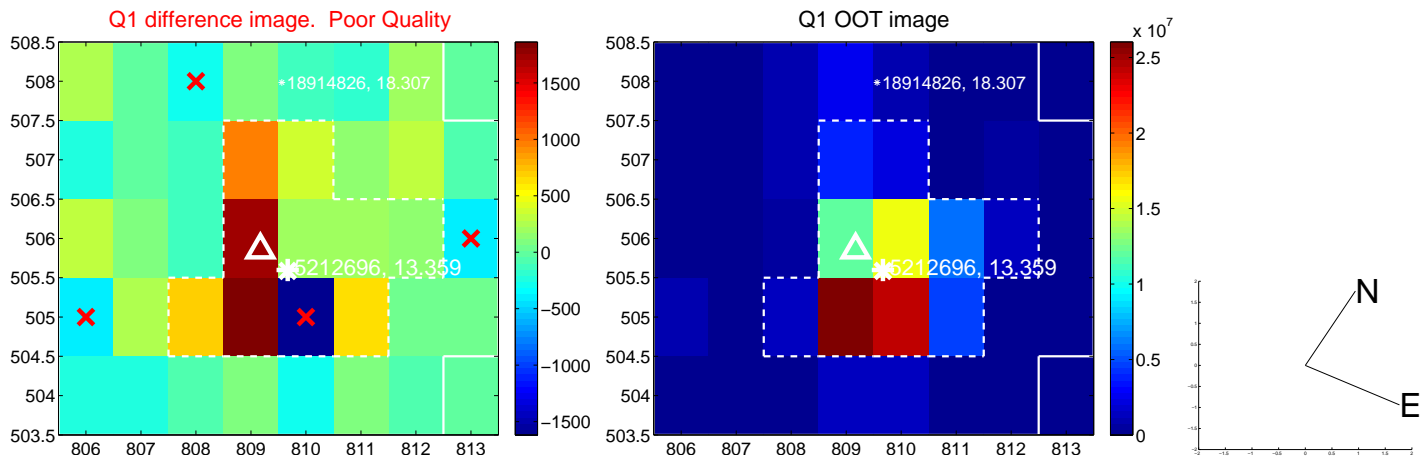
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.021 ± 0.539	0.04	-0.007 ± 0.875	0.020 ± 0.476
PRF-fit source offset from KIC position	0.108 ± 0.816	0.13	-0.088 ± 0.854	0.063 ± 0.503
photometric centroid source offset	0.18 ± 0.52	0.35	-0.16 ± 0.52	0.08 ± 0.53

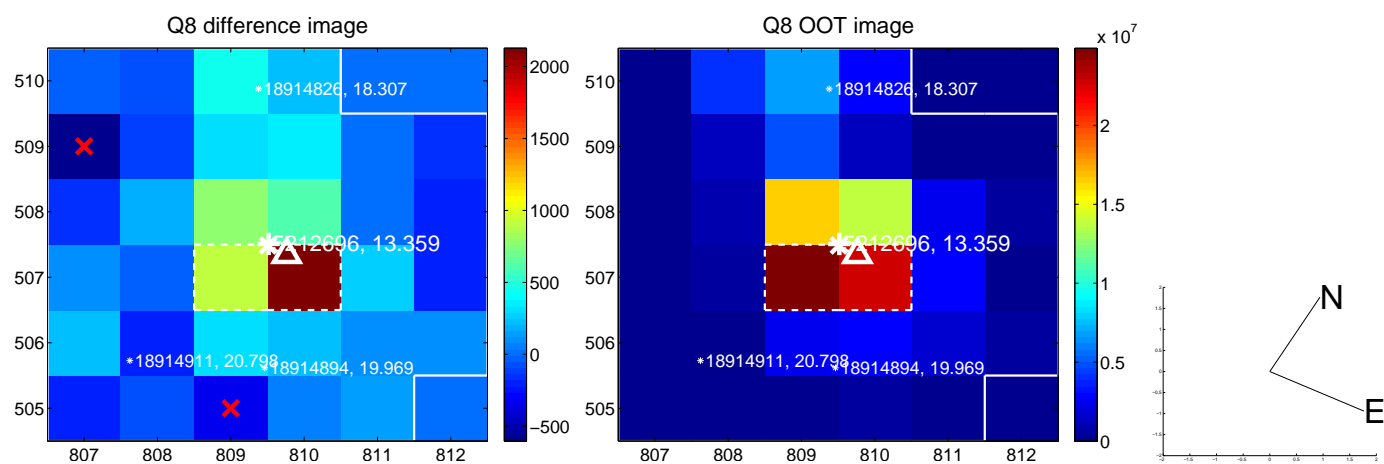
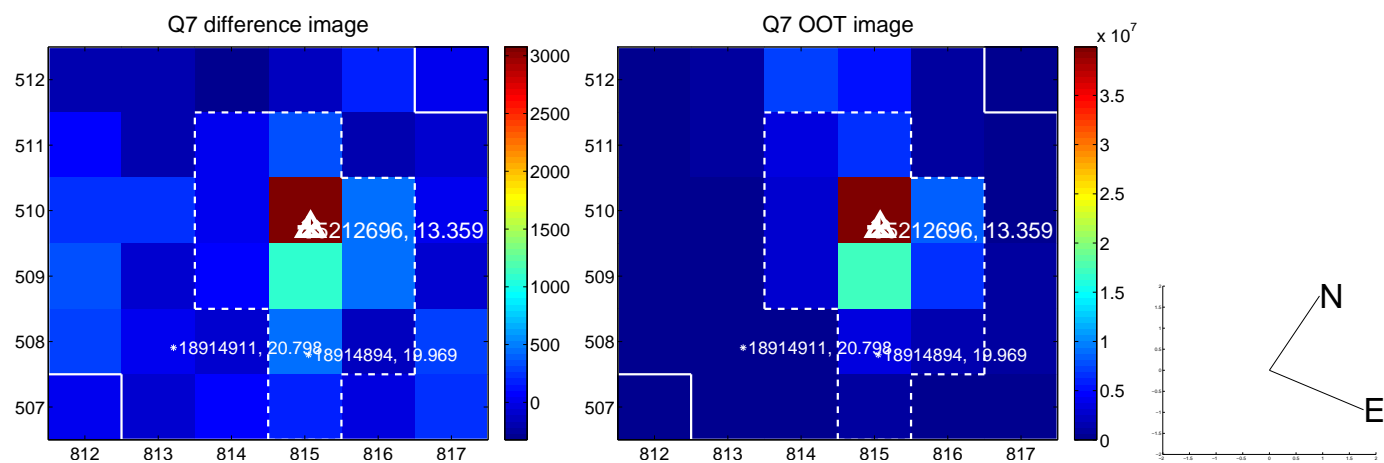
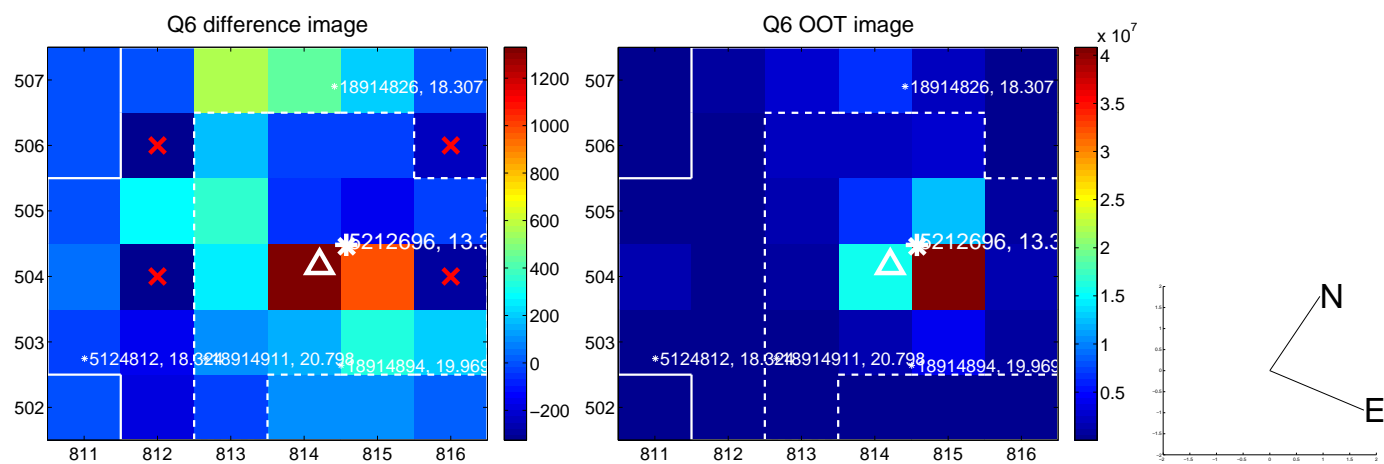
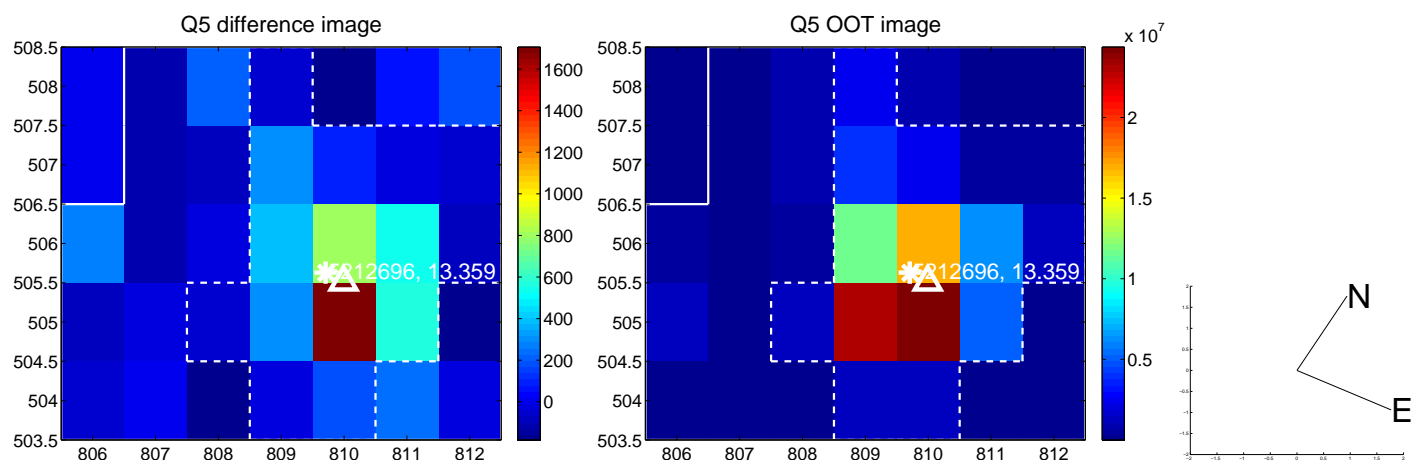


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

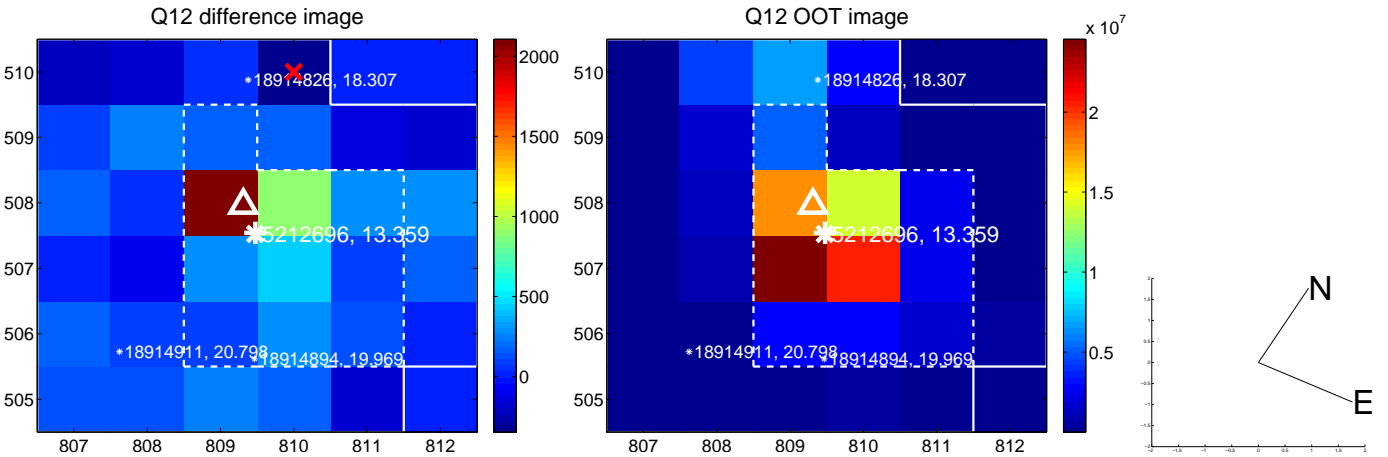
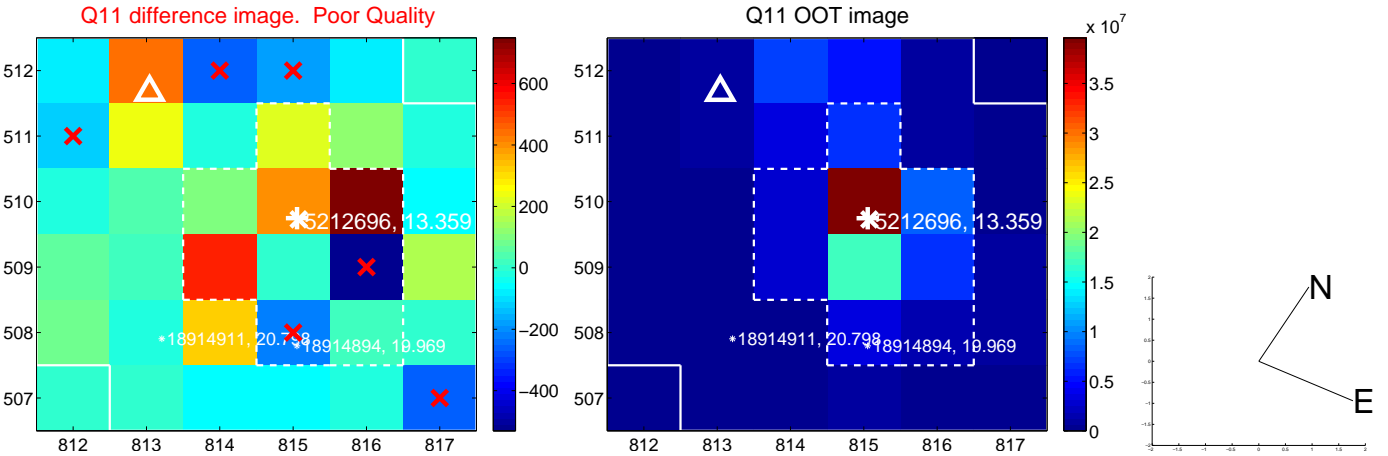
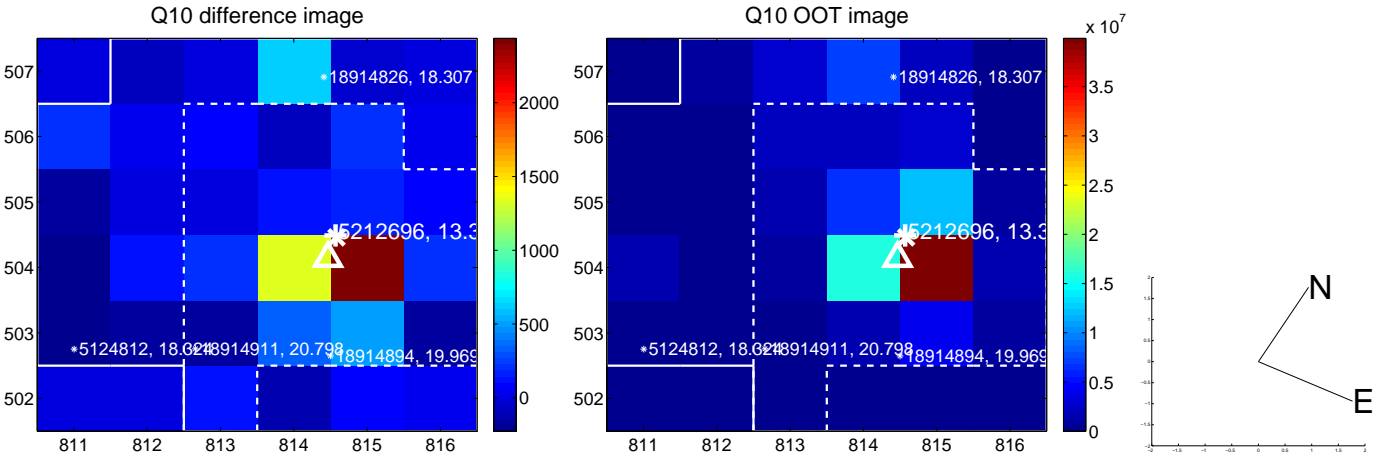
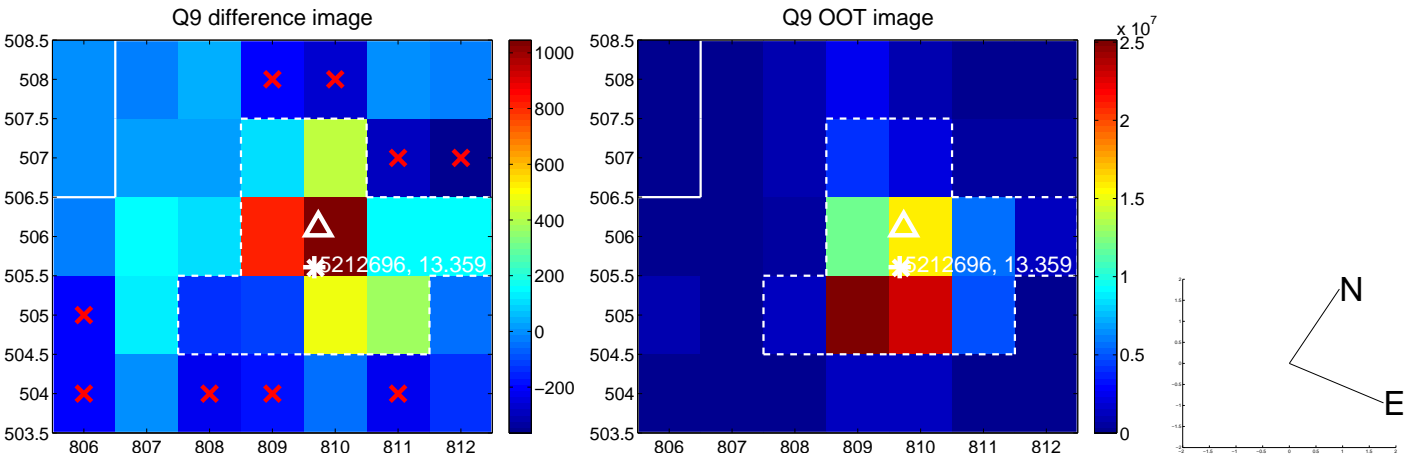
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



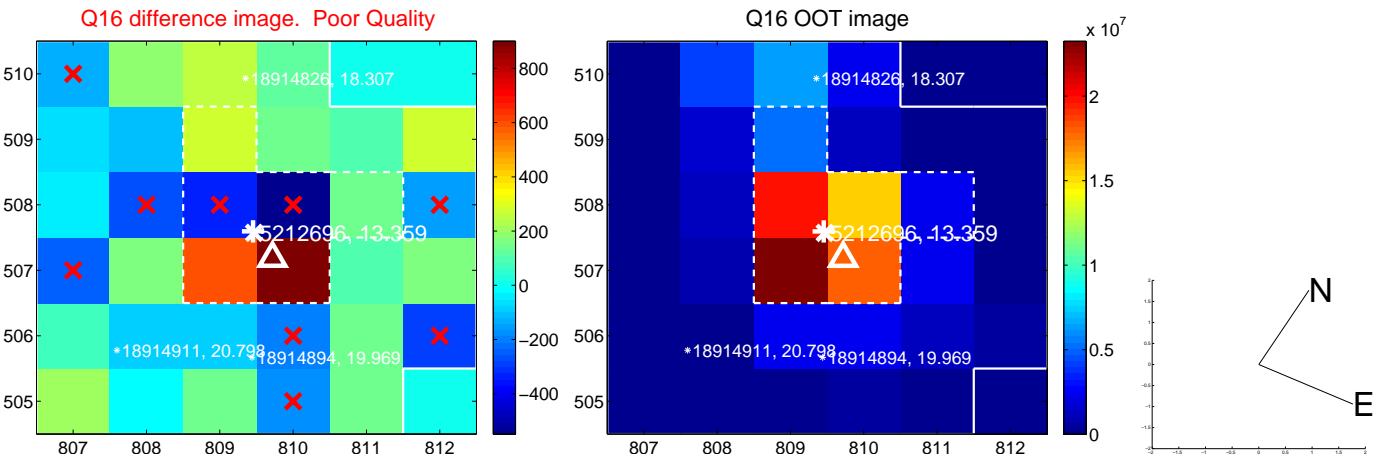
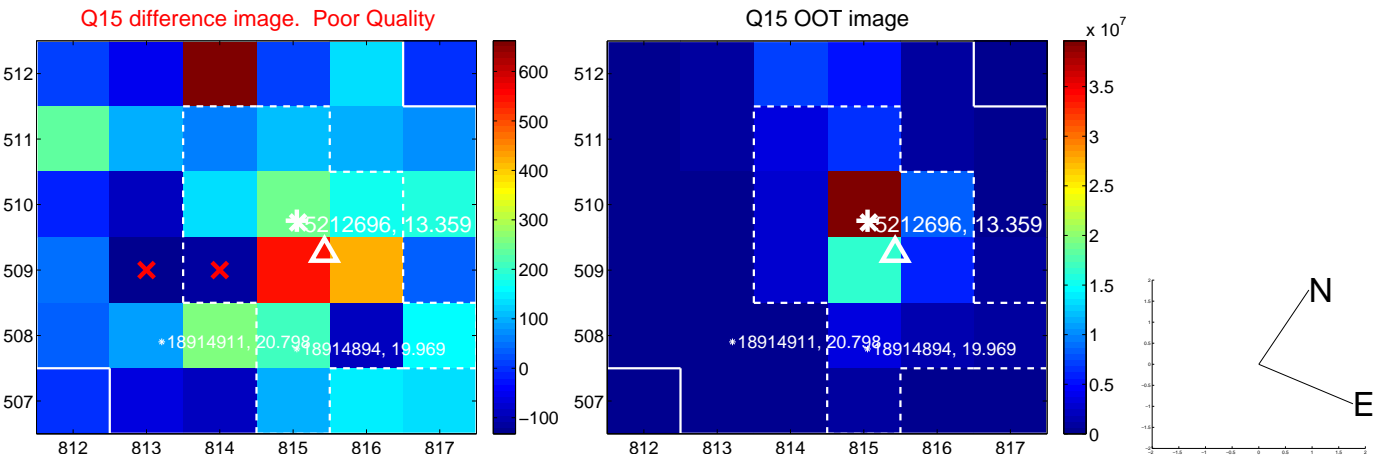
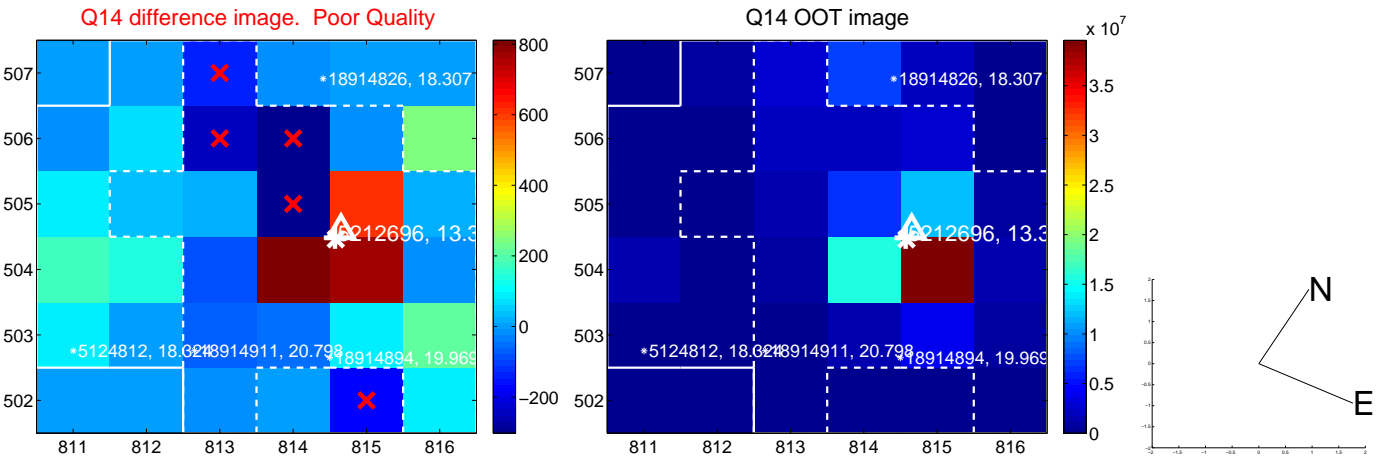
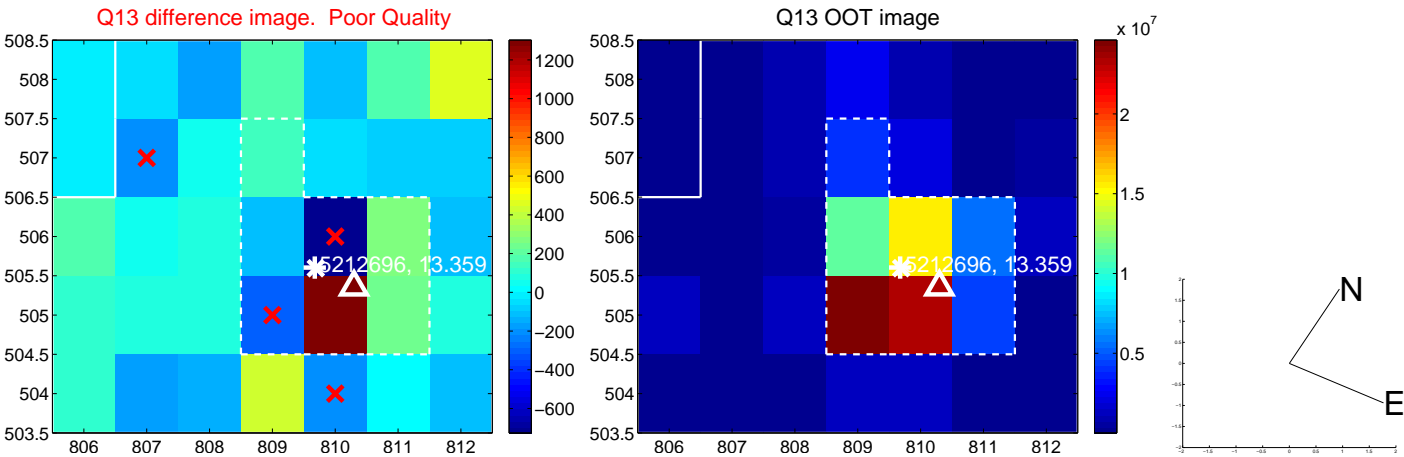
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



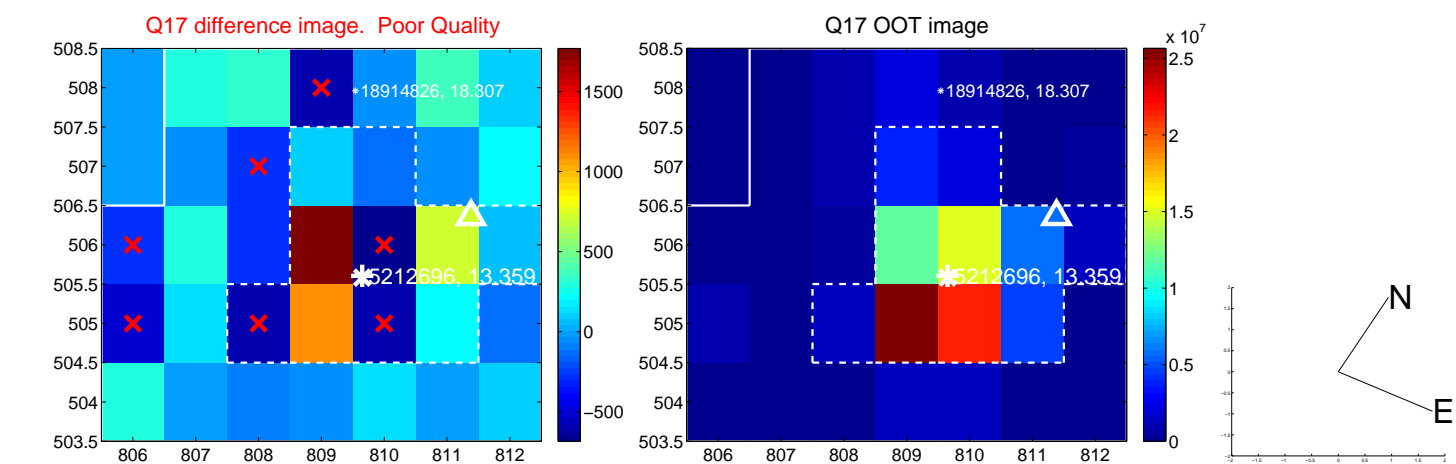
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



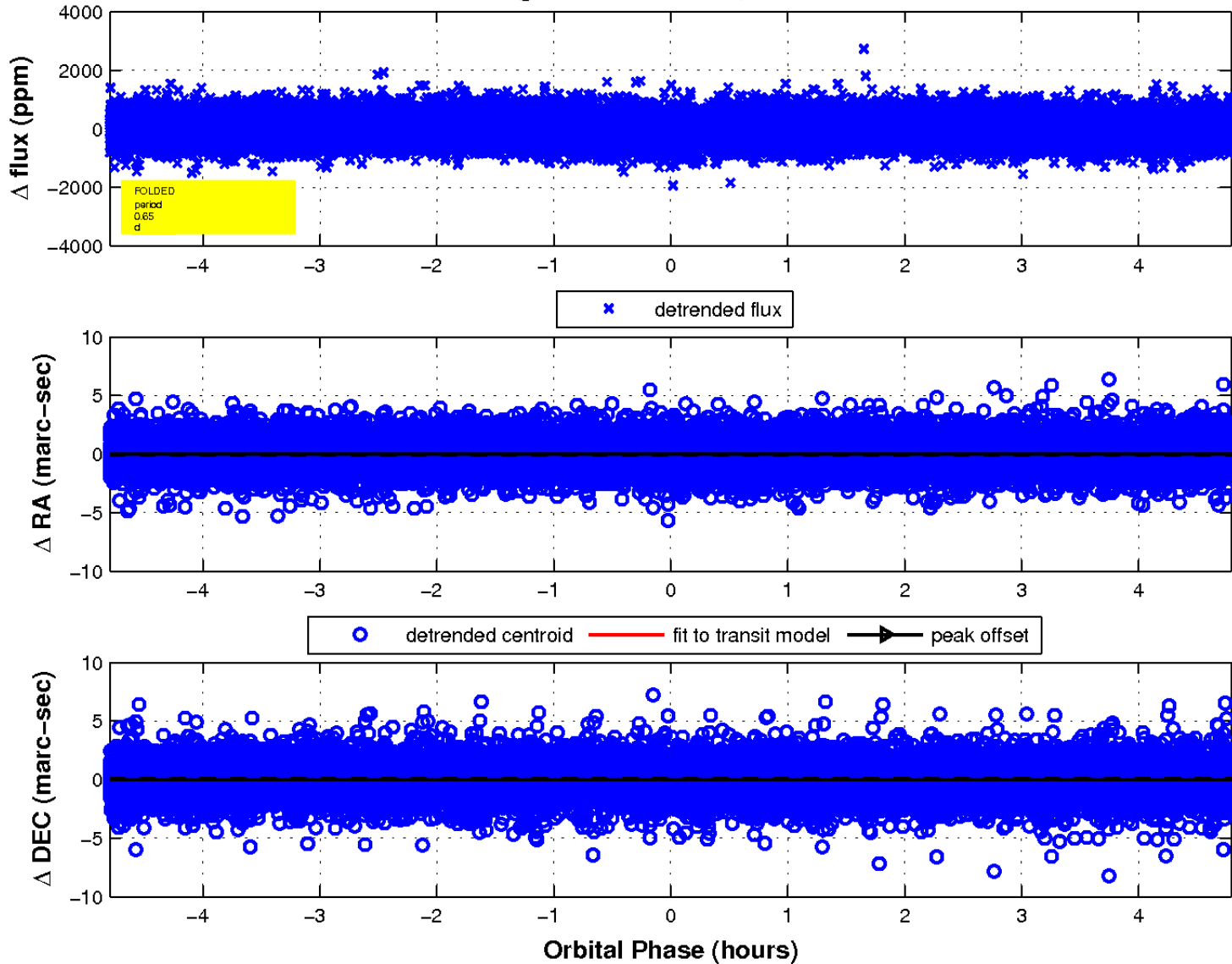
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

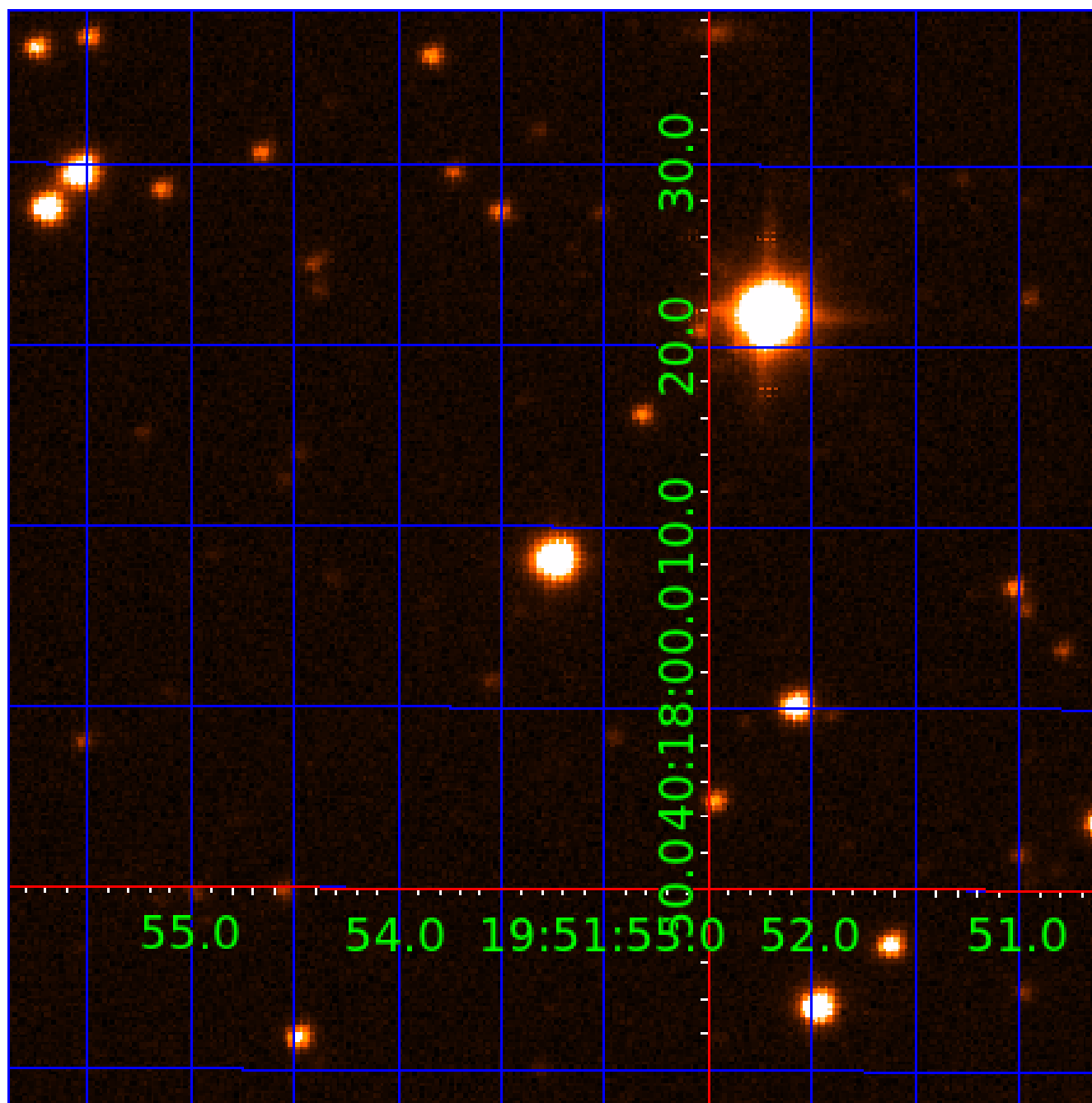


fluxWeightedCentroids, Planet 3 of 5



UKIRT Image

Declination



KIC 005212696

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})
005212696-01	OBS	No	0.653332	131.914297	65.6	1.353	10.2	11.1	1.84	7696	1.78	34752.64
005212696-02	OBS	No	0.653320	131.763094	66.8	1.399	10.3	11.6	1.84	7696	1.75	34753.47
005212696-03	OBS	No	0.653318	132.089907	60.4	1.599	9.5	11.4	1.84	7696	1.66	34753.64
005212696-04	OBS	No	25.726809	134.227936	496.0	1.705	7.9	6.8	1.84	7696	4.76	259.41
005212696-05	OBS	No	34.711445	165.876923	722.0	2.306	7.8	7.1	1.84	7696	7.88	174.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005212696-01	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—HALO_GHOST
005212696-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD
005212696-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—SAME_NTL_PERIOD
005212696-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
005212696-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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

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

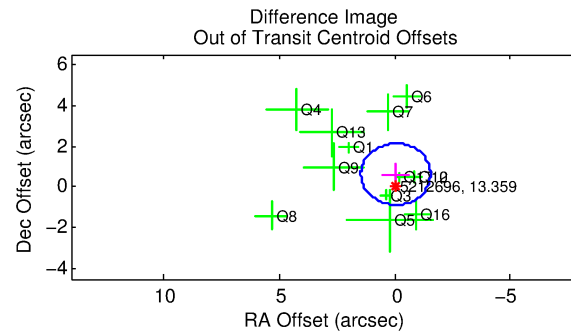
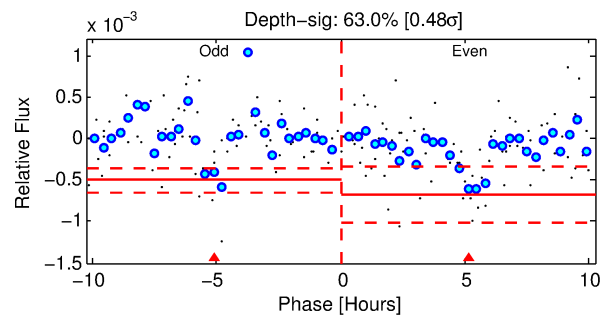
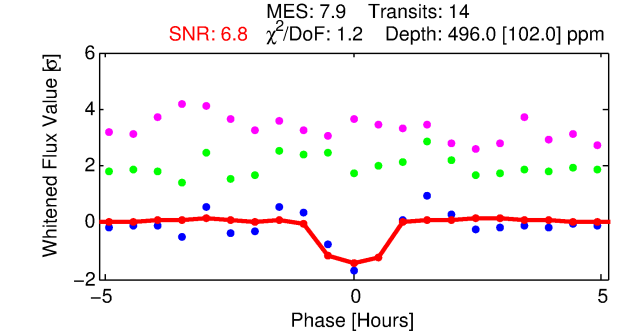
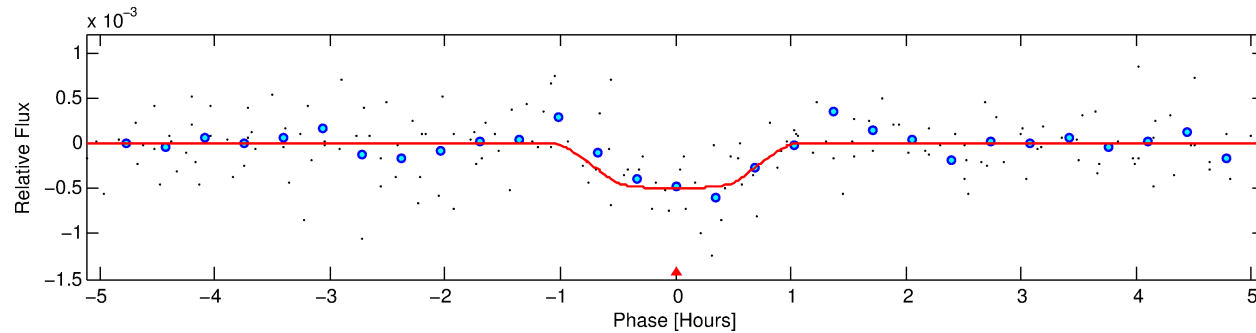
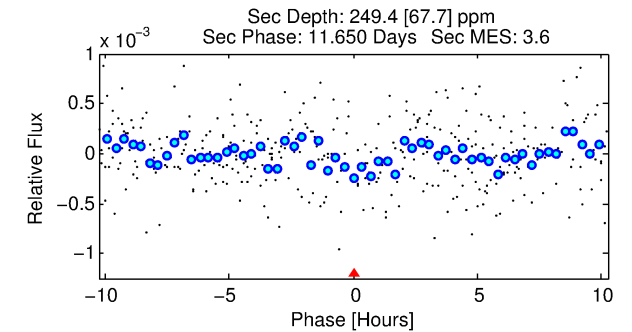
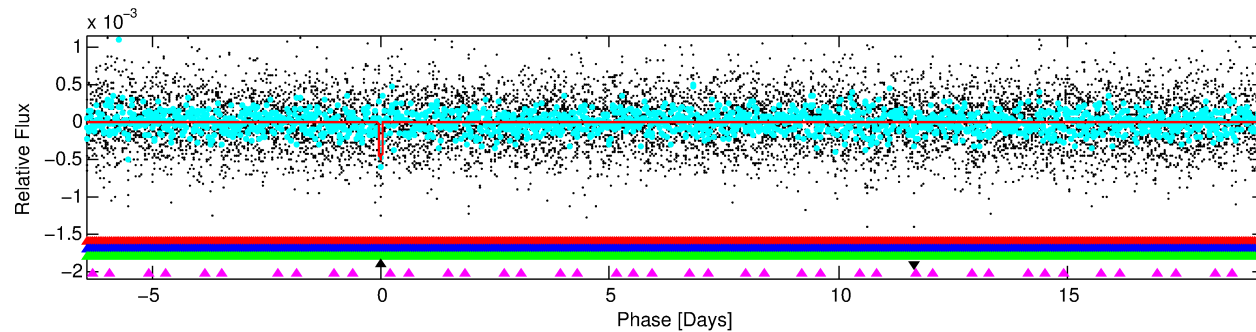
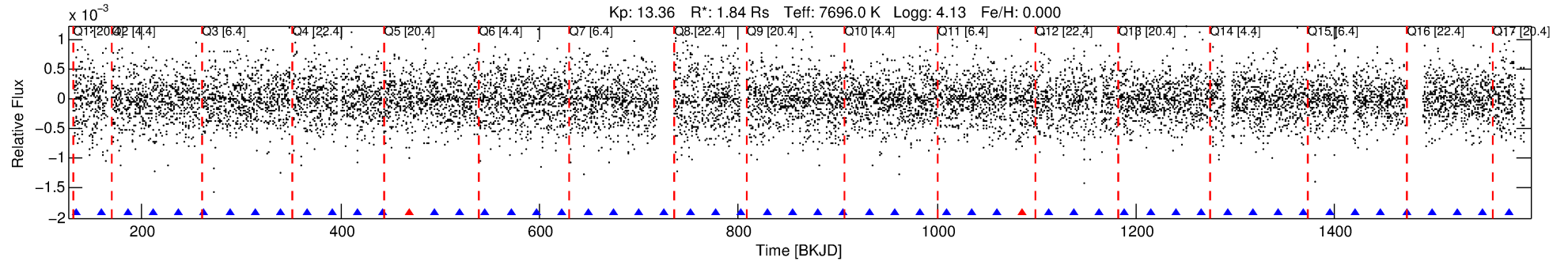
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005212696-04

No Significant Match Found

DV One-Page Summary

KIC: 5212696 Candidate: 4 of 5 Period: 25.727 d



DV Fit Results:

Period = 25.72681 [0.00025] d
Epoch = 134.2279 [0.0085] BKJD
Rp/R* = 0.0237 [0.0147]
a/R* = 55.56 [215.24]
b = 0.90 [0.80]
Seff = 259.41 [96.96]
Teff = 1023 [96] K
Rp = 4.76 [3.25] Re
a = 0.2025 [0.0473] AU
Ag = 248.03 [326.29] [0.76 σ]
Teffp = 6279 [2014] K [2.61 σ]

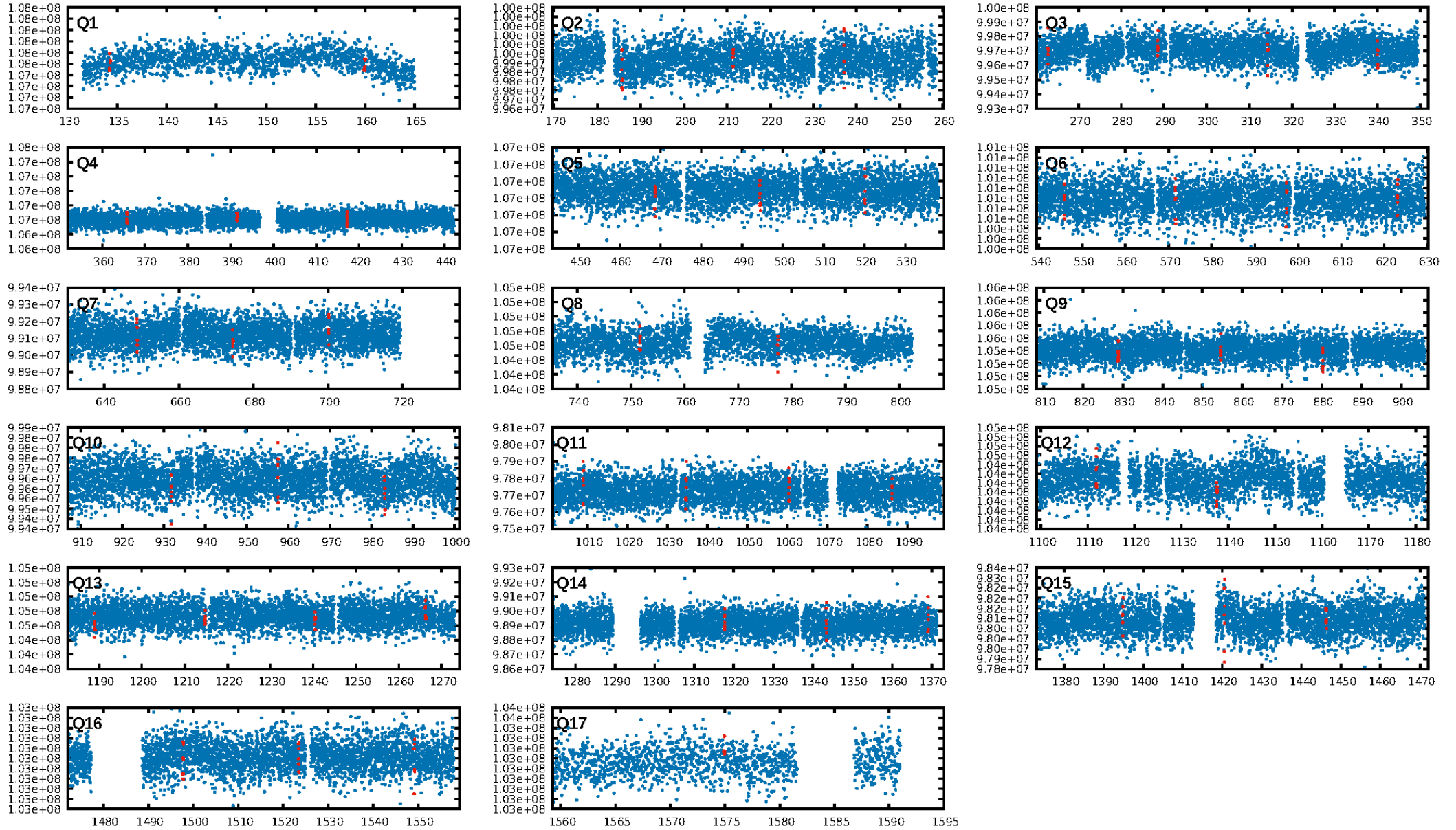
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [276.44 σ]
LongPeriod-sig: 100.0% [75.20 σ]
ModelChiSquare2-sig: 4.9%
ModelChiSquareGof-sig: 98.1%
Bootstrap-pfa: 1.20e-10
RollingBand-fgt: 0.85 [11/13]
GhostDiagnostic-chr: -0.6798
Centroid-sig: 49.1%
Centroid-so: 0.767 arcsec [1.87 σ]
OotOffset-rm: 0.630 arcsec [1.26 σ]
KicOffset-rm: 0.686 arcsec [1.23 σ]
OotOffset-st: 2/2/4/5 [13]
KicOffset-st: 2/2/4/5 [13]
DiffImageQuality-fgm: 0.31 [4/13]
DiffImageOverlap-fno: 0.00 [0/17]

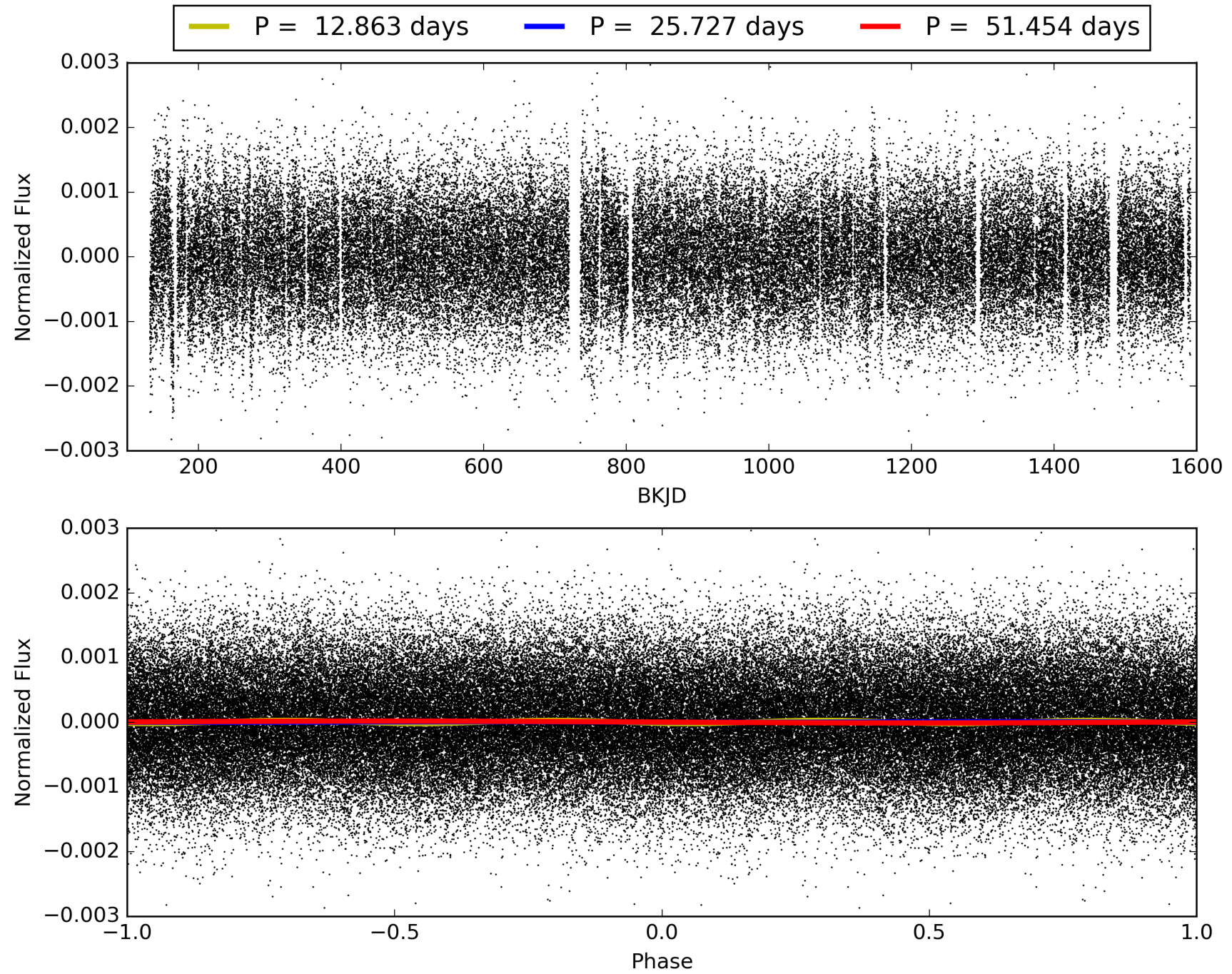
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 13:49:15 Z

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

TCE 005212696-04, PDC Light Curves

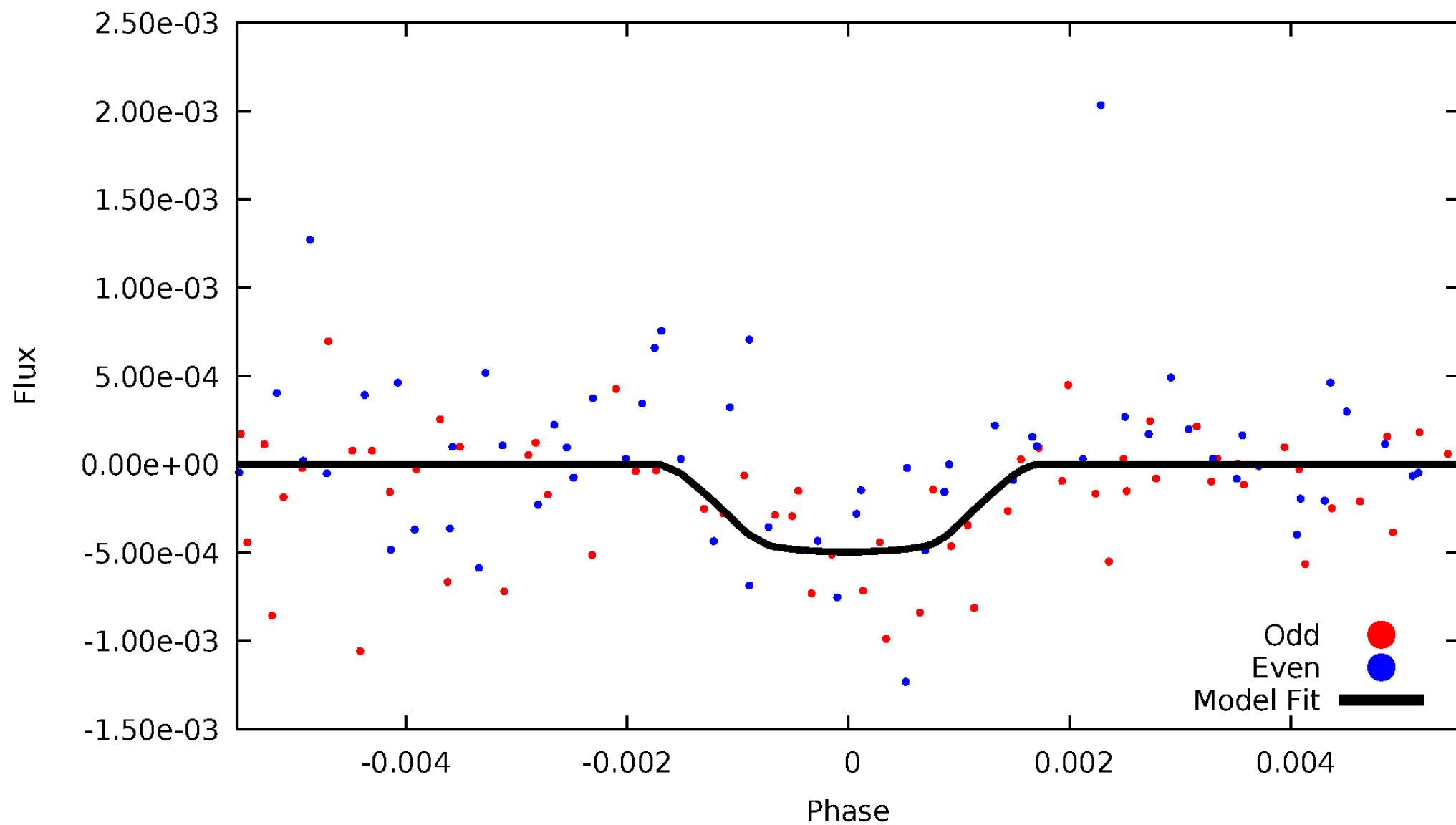


TCE 005212696-04



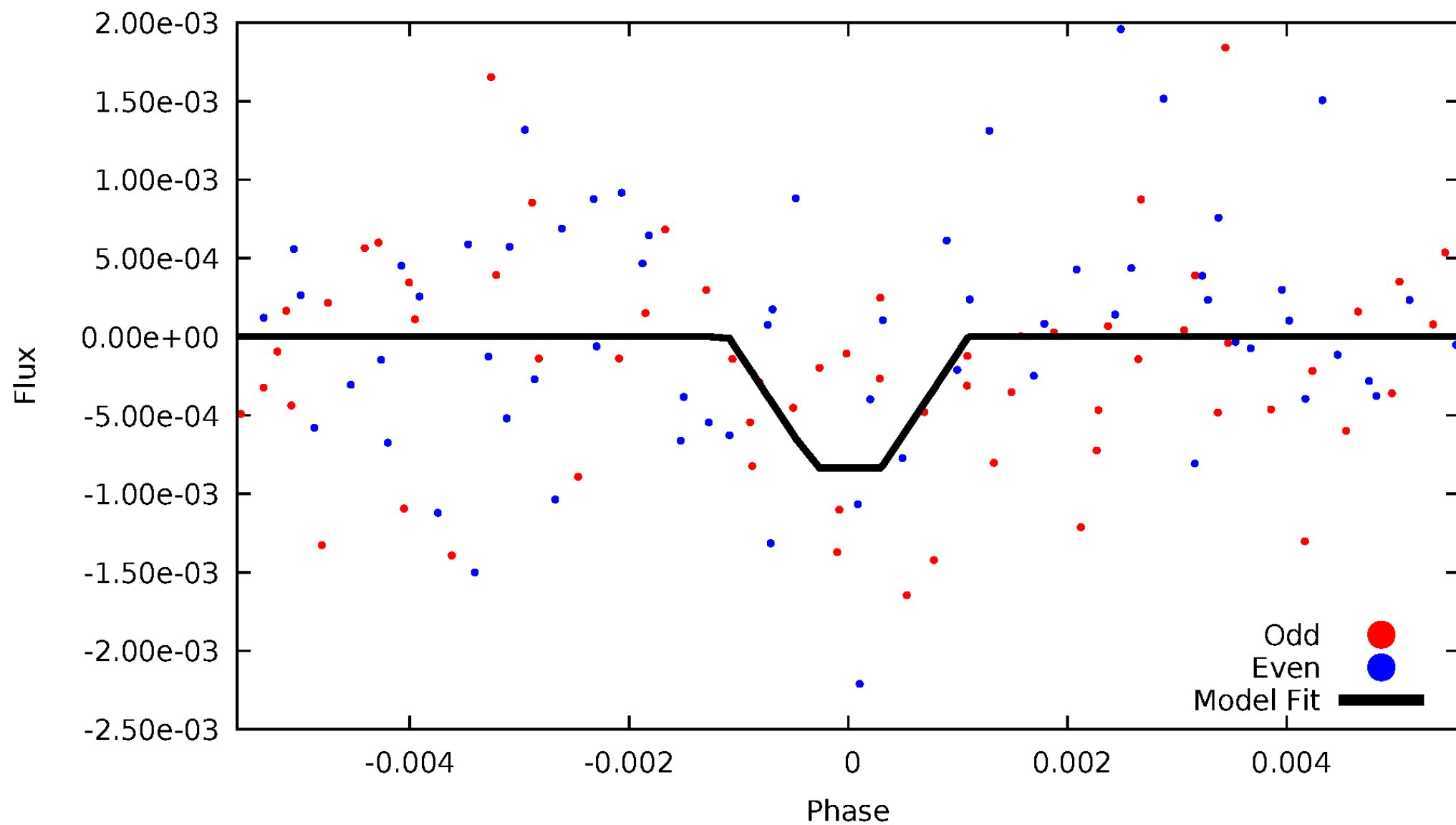
DV Odd/Even

TCE 005212696-04



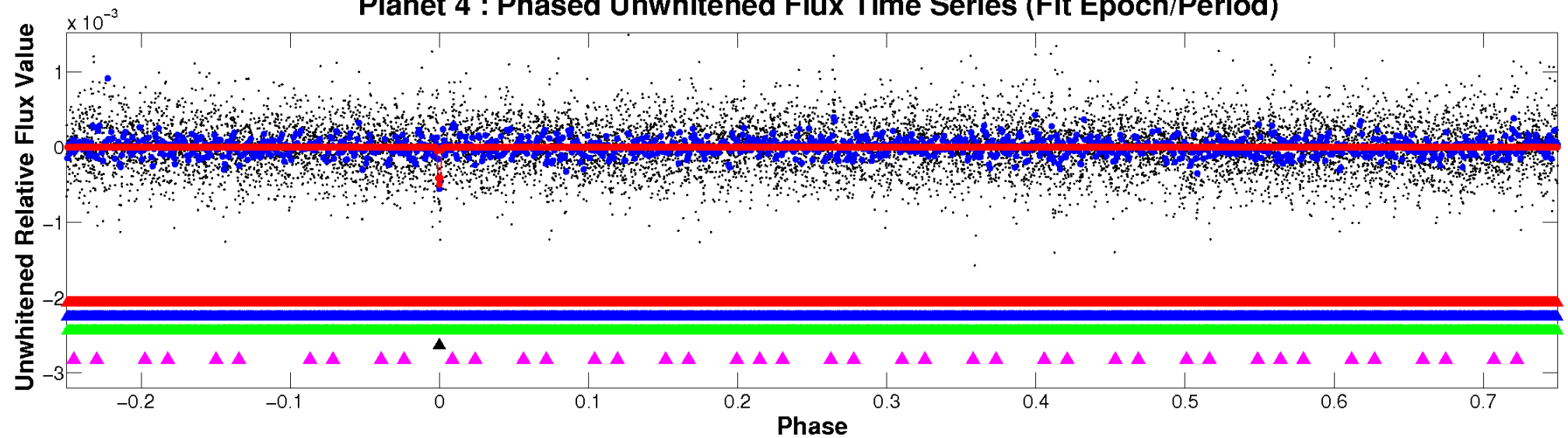
ALT Odd/Even

TCE 005212696-04

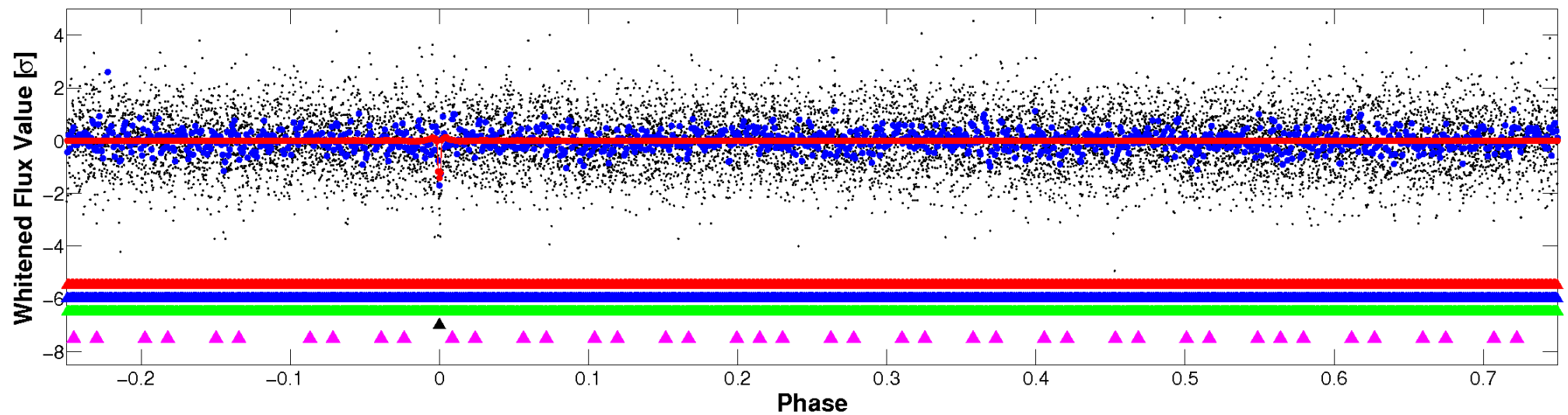


Non-Whitened Vs. Whitened Light Curve

Planet 4 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

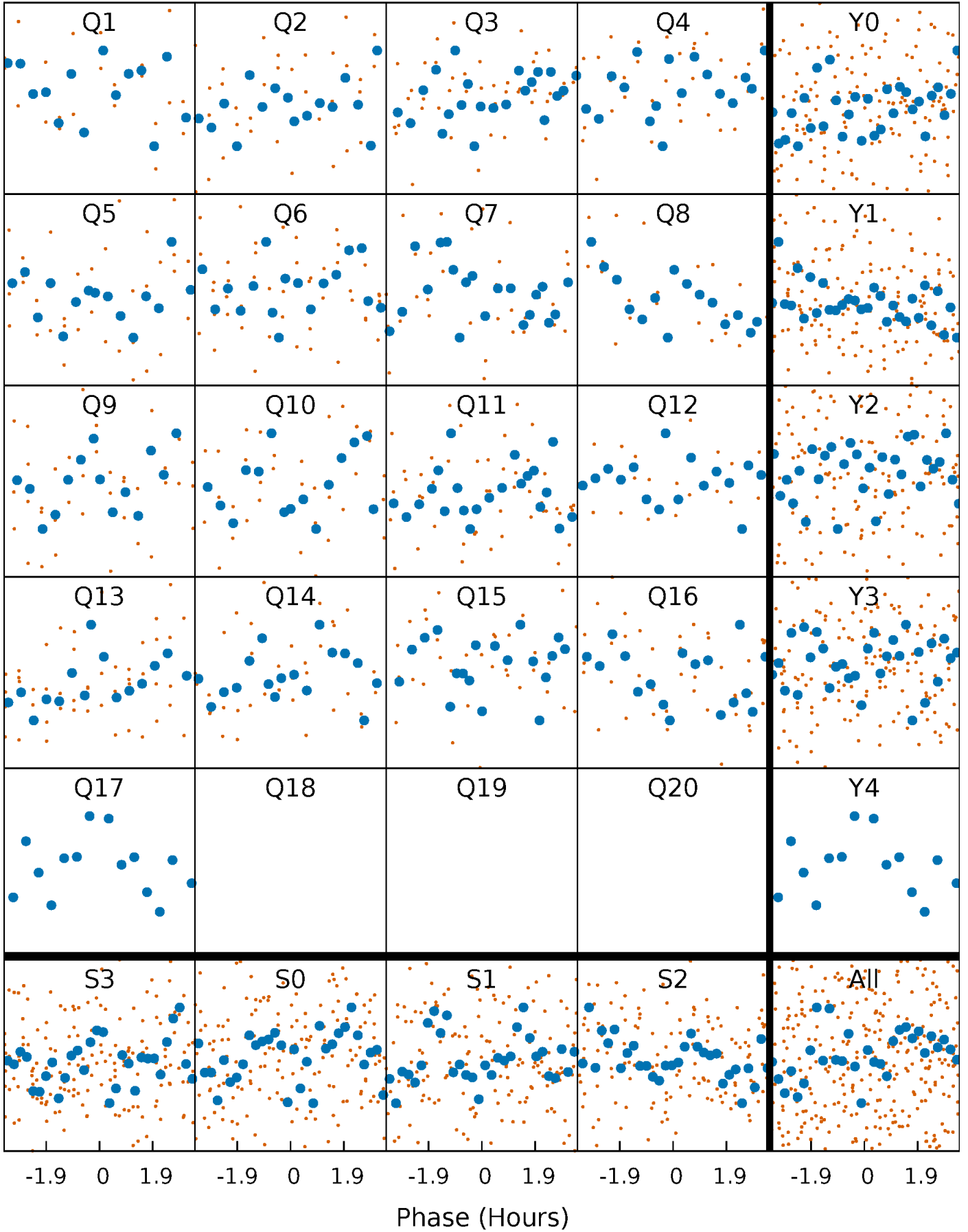


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



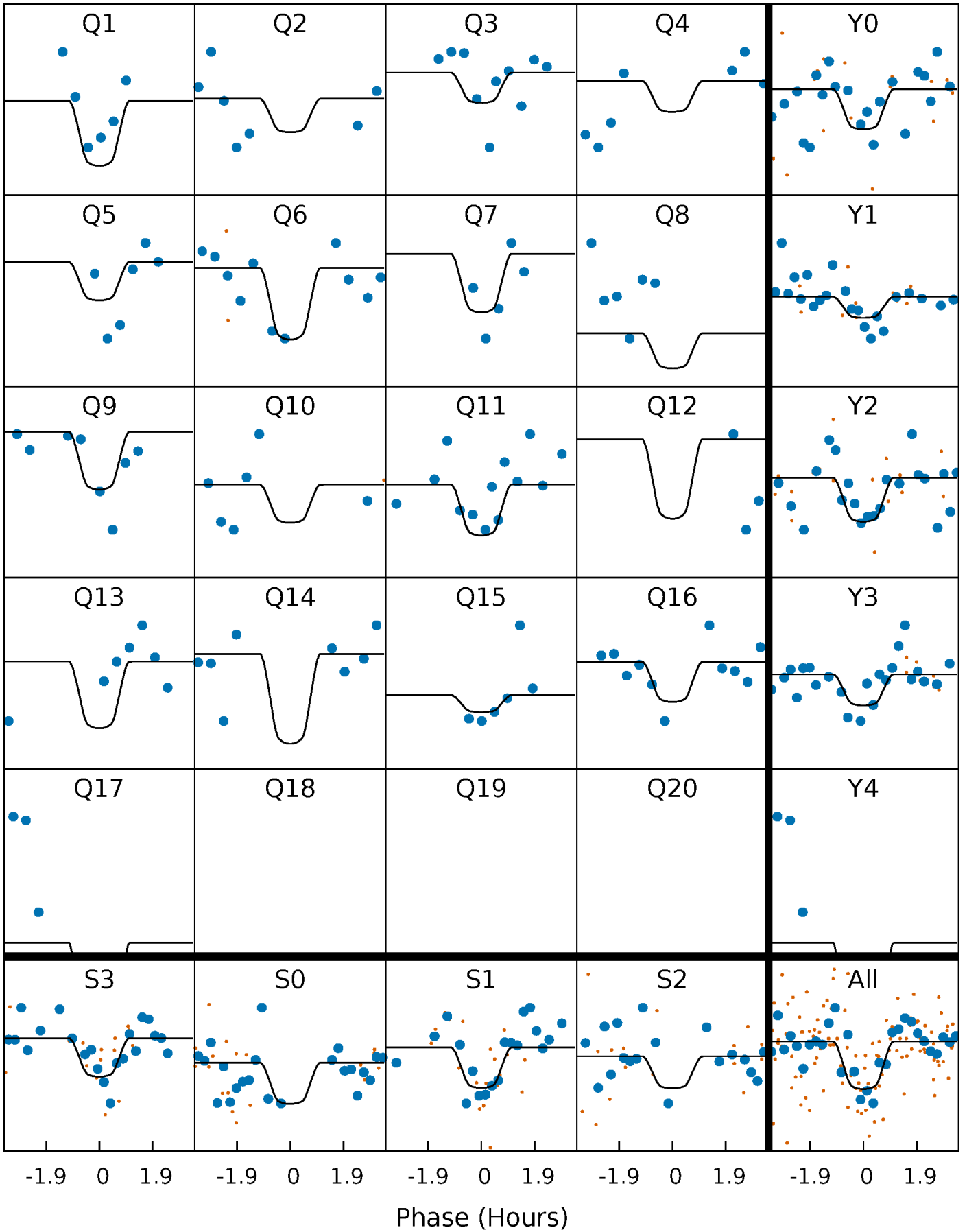
PDC Quarter-Phased Transit Curves

TCE 005212696-04 P= 25.726809 Days $T_0=134.227936$ (BKJD)



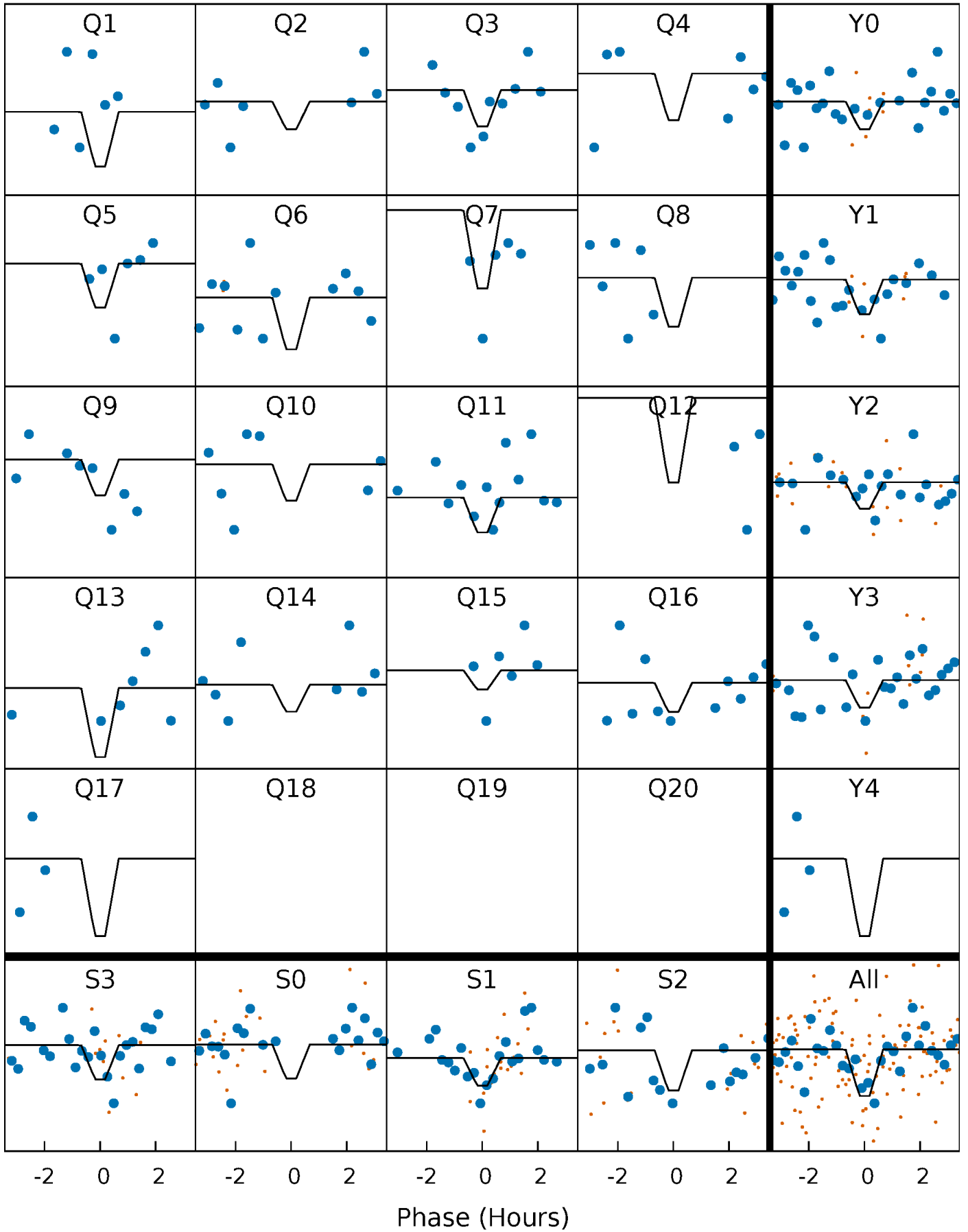
DV Quarter-Phased Transit Curves

TCE 005212696-04 P= 25.726809 Days $T_0=134.227936$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

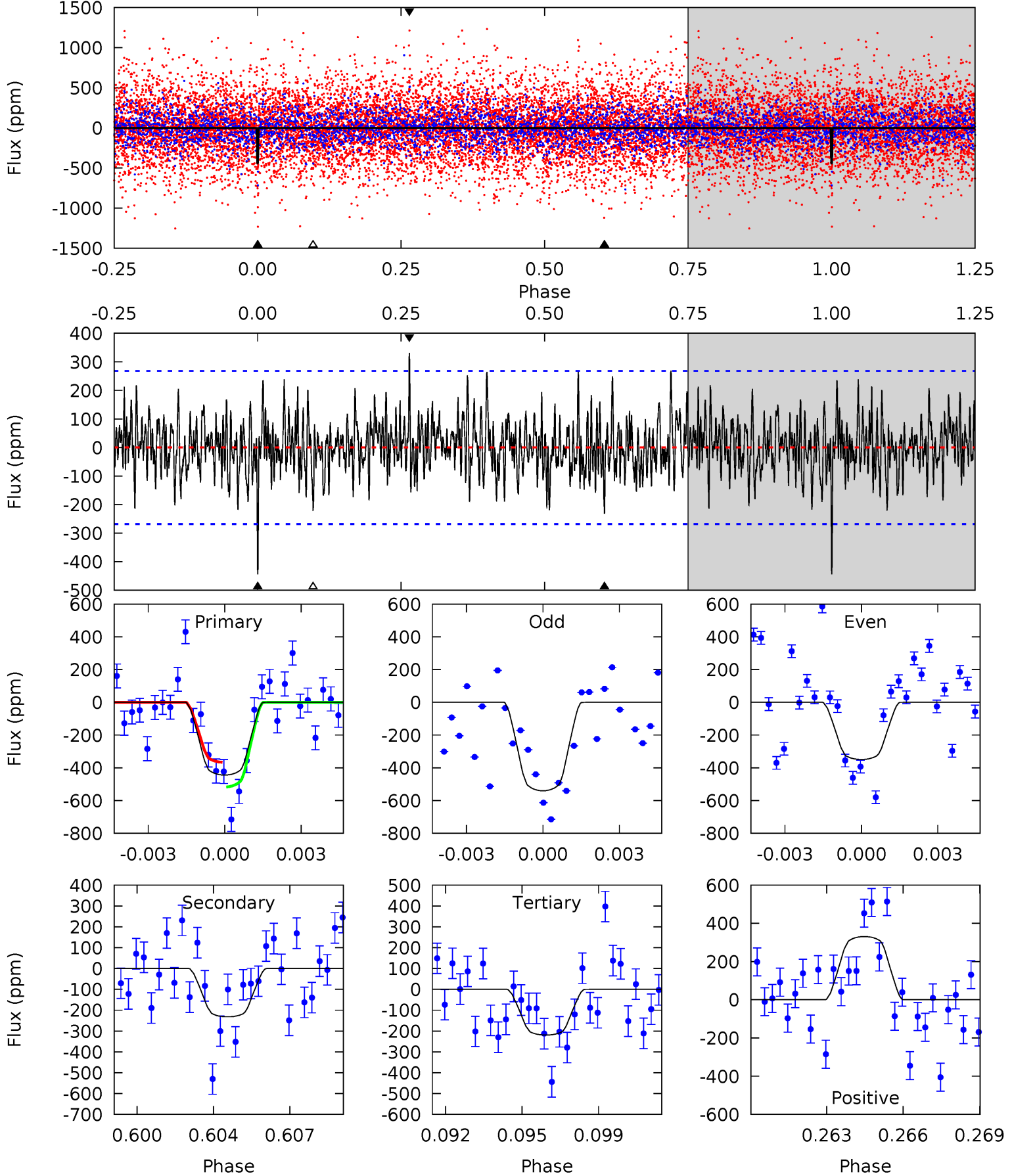
TCE 005212696-04 P= 25.726419 Days $T_0=134.242186$ (BKJD)



DV Model-Shift Uniqueness Test

005212696-04, P = 25.726809 Days, E = 108.501127 Days

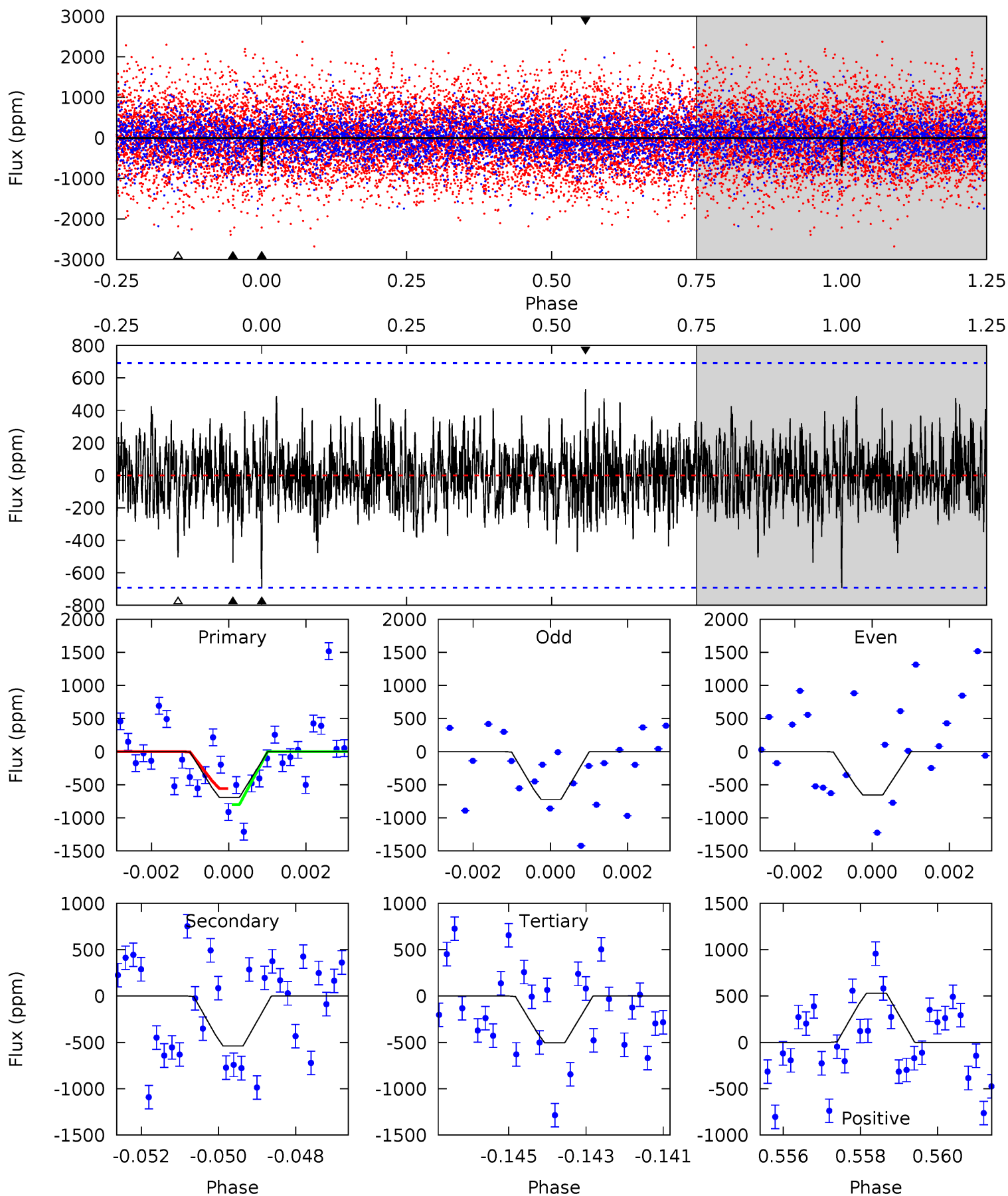
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.66	4.52	4.27	6.44	5.23	2.93	1.59	4.38	2.21	0.24	-1.93	1.86	0.63	0.43	1.46



Alt Model-Shift Uniqueness Test

005212696-04, P = 25.726419 Days, E = 108.515767 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.31	4.13	3.88	4.06	5.31	3.07	1.16	1.44	1.25	0.26	0.07	0.26	0.95	0.43	0.93



Stellar Parameters For KIC 005212696

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7696^{+214}_{-322}	$4.132^{+0.120}_{-0.180}$	$0.000^{+0.200}_{-0.350}$	$1.840^{+0.519}_{-0.346}$	$1.673^{+0.194}_{-0.267}$	$0.378^{+0.218}_{-0.188}$
	+3%/-4%	+3%/-4%	+inf%/-inf%	+28%/-19%	+12%/-16%	+58%/-50%
Source	KIC0	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 005212696-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-232 ± 51	$5.15^{+3.29}_{-2.79}$	1437^{+106}_{-84}	5760^{+3140}_{-1032}	192^{+707}_{-120}
Alt.	-539 ± 130	$6.11^{+2.76}_{-3.11}$	1434^{+104}_{-88}	6642^{+3421}_{-1136}	320^{+879}_{-177}

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 $A_{obs} \gg 1.0$

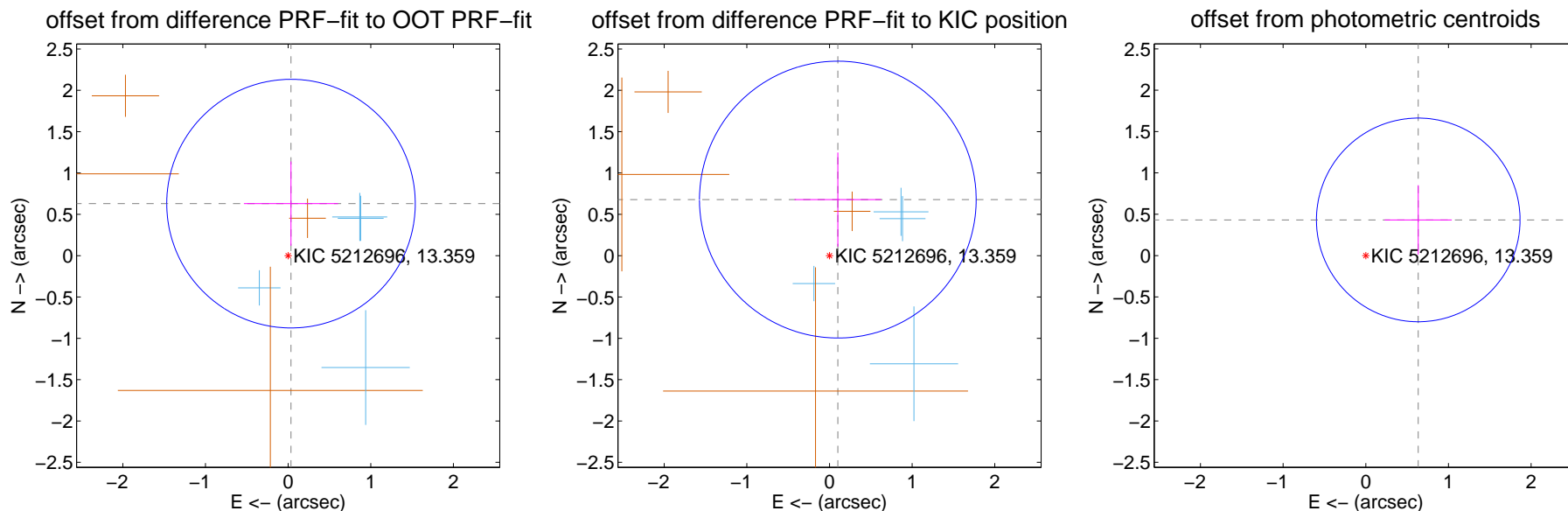
DV Centroid Data

Supplemental centroid analysis for 005212696-04. Kepler magnitude: 13.36. Transit SNR 6.79

There are 4 quarters with good PRF difference image offsets

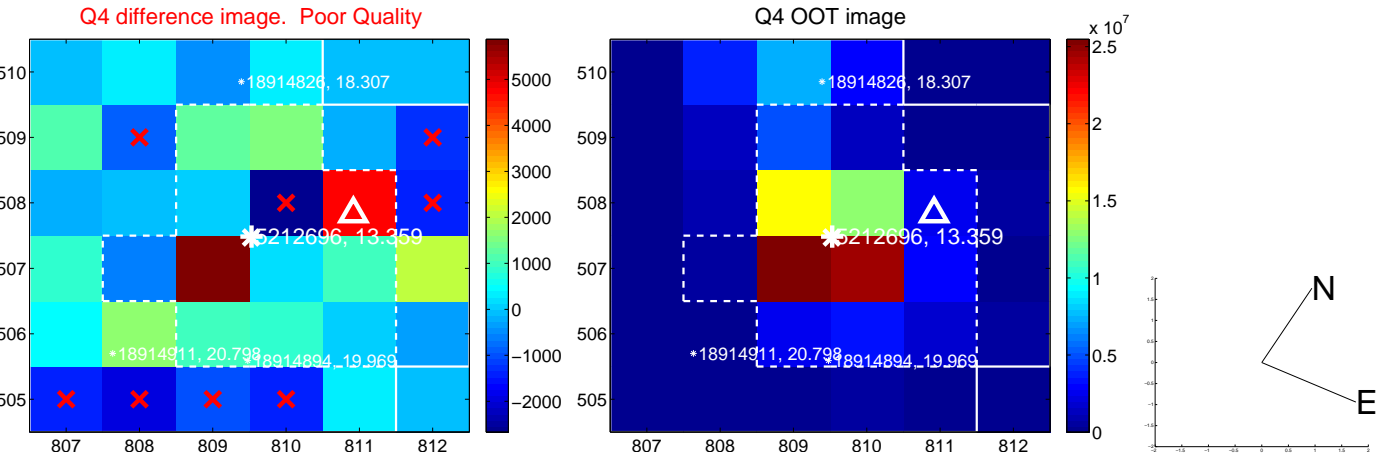
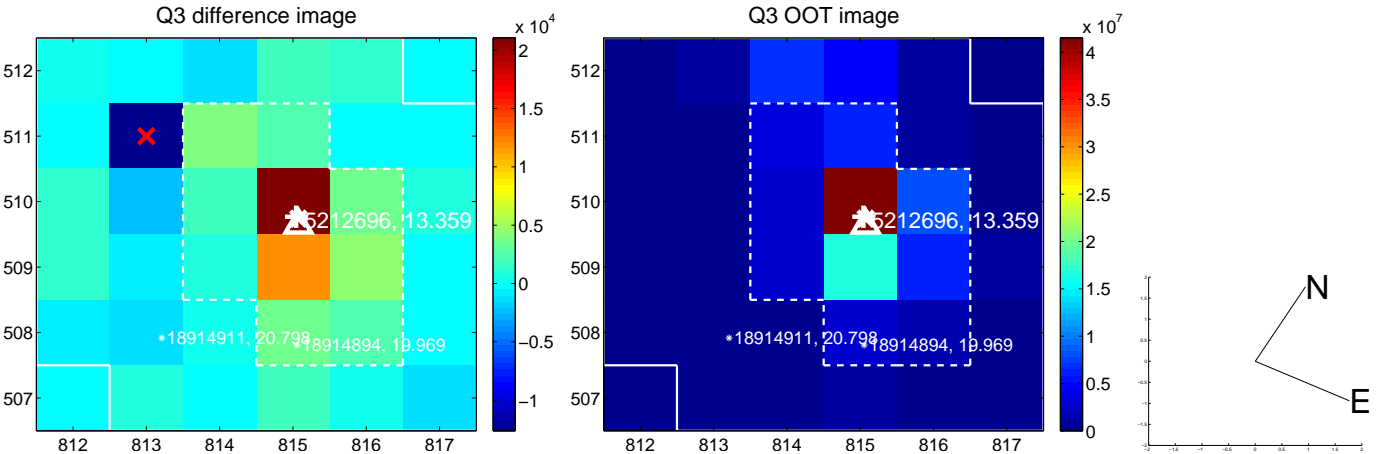
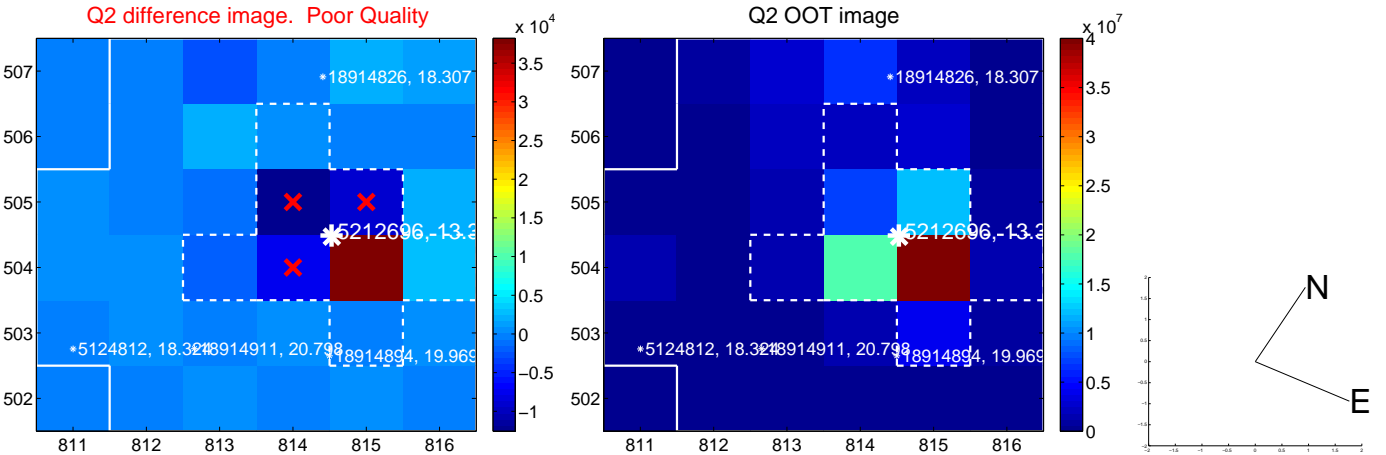
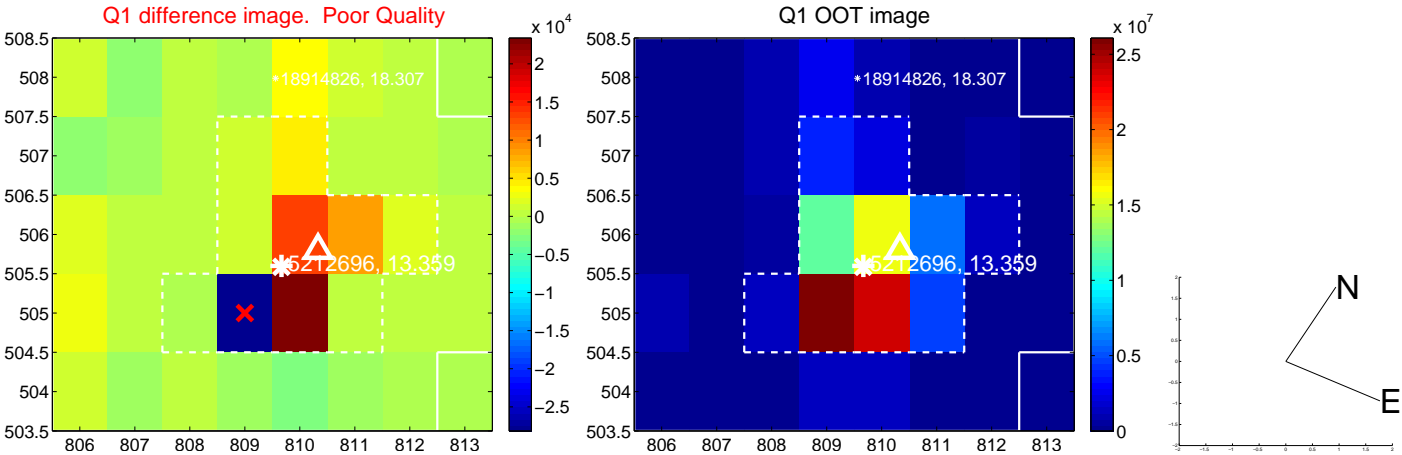
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.630 ± 0.501	1.26	-0.035 ± 0.569	0.629 ± 0.509
PRF-fit source offset from KIC position	0.686 ± 0.558	1.23	-0.101 ± 0.525	0.678 ± 0.569
photometric centroid source offset	0.77 ± 0.41	1.87	-0.63 ± 0.41	0.43 ± 0.42

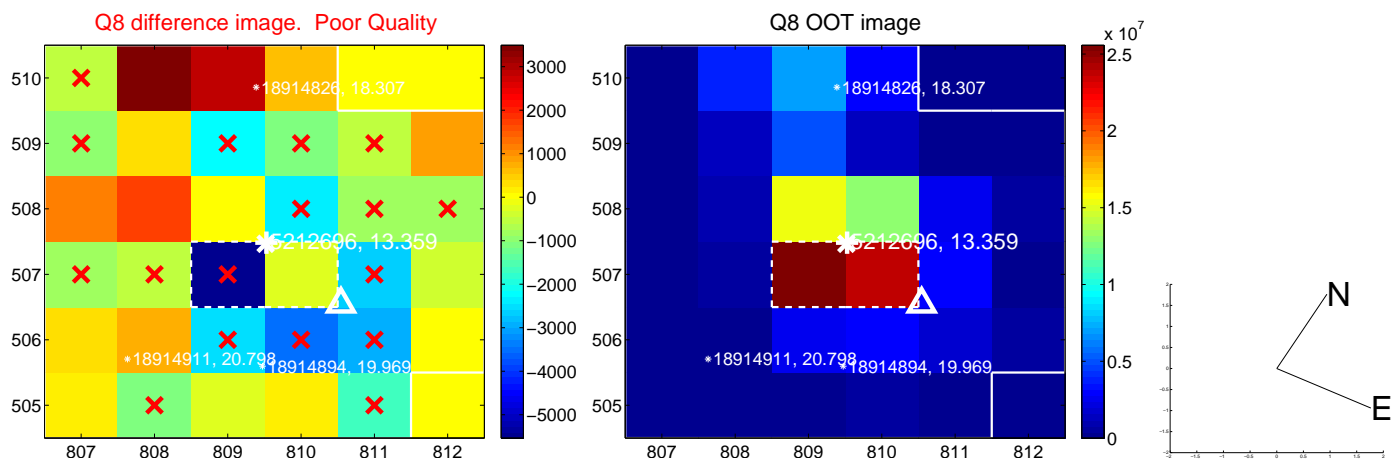
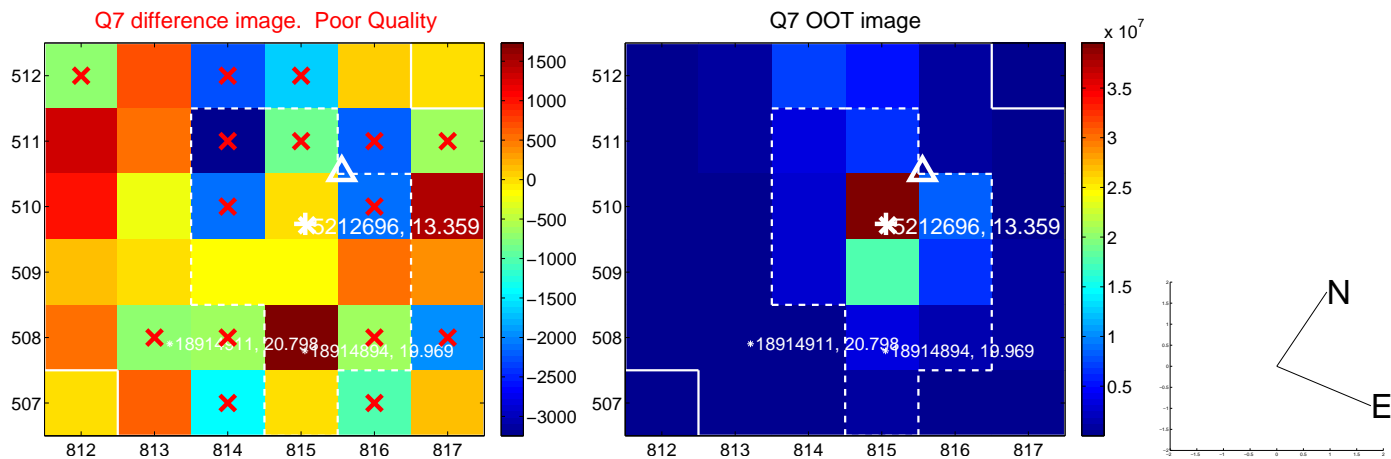
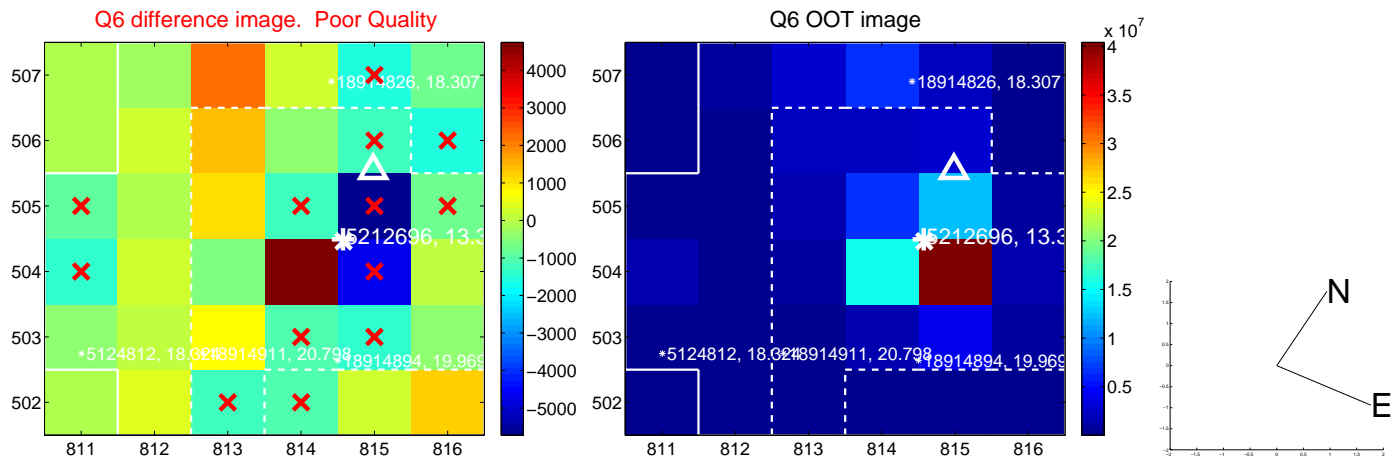
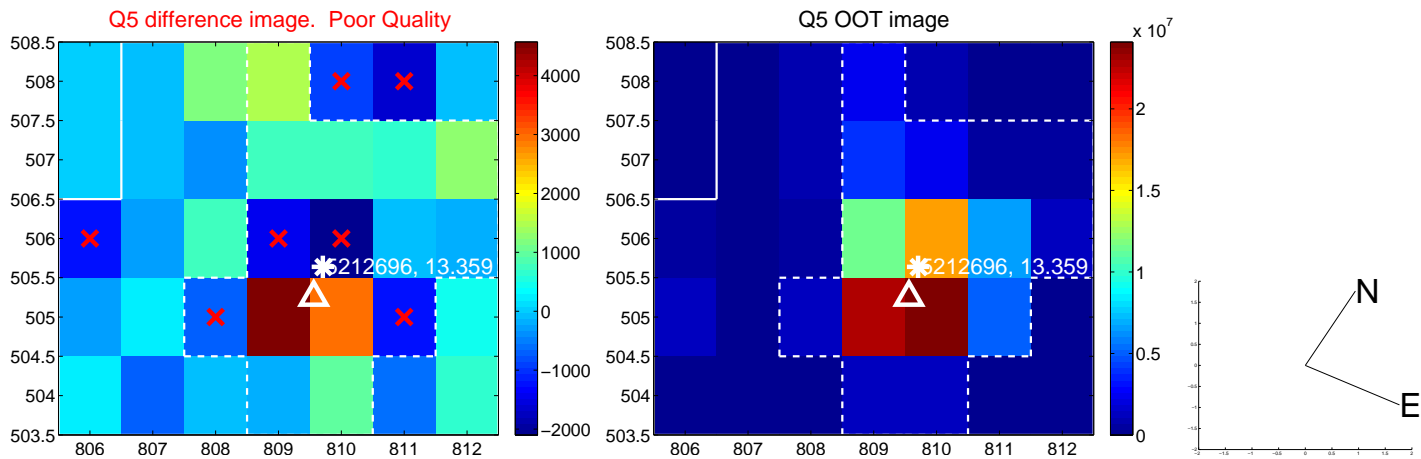


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

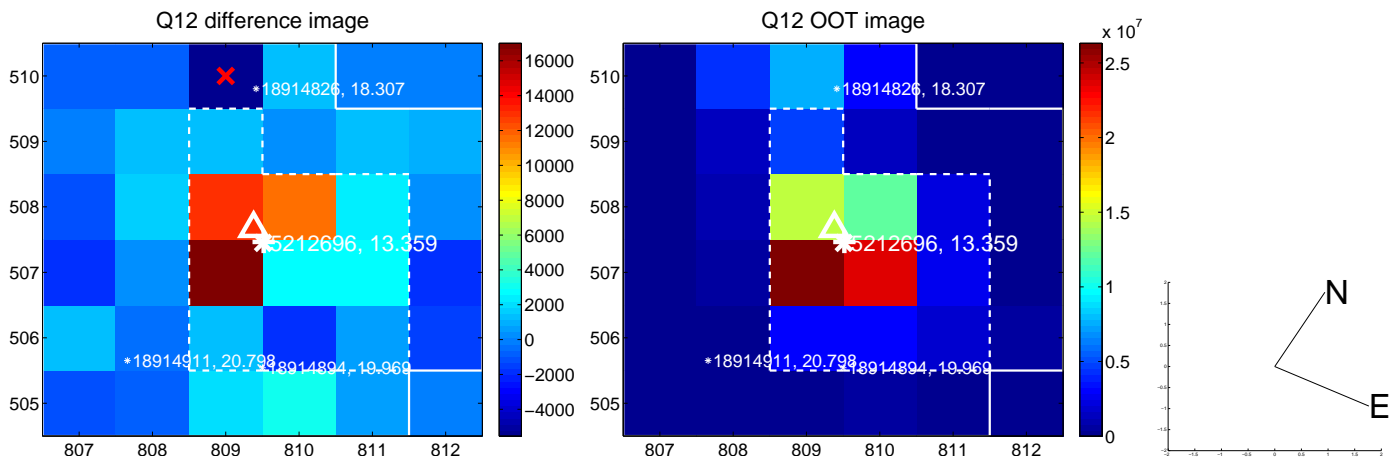
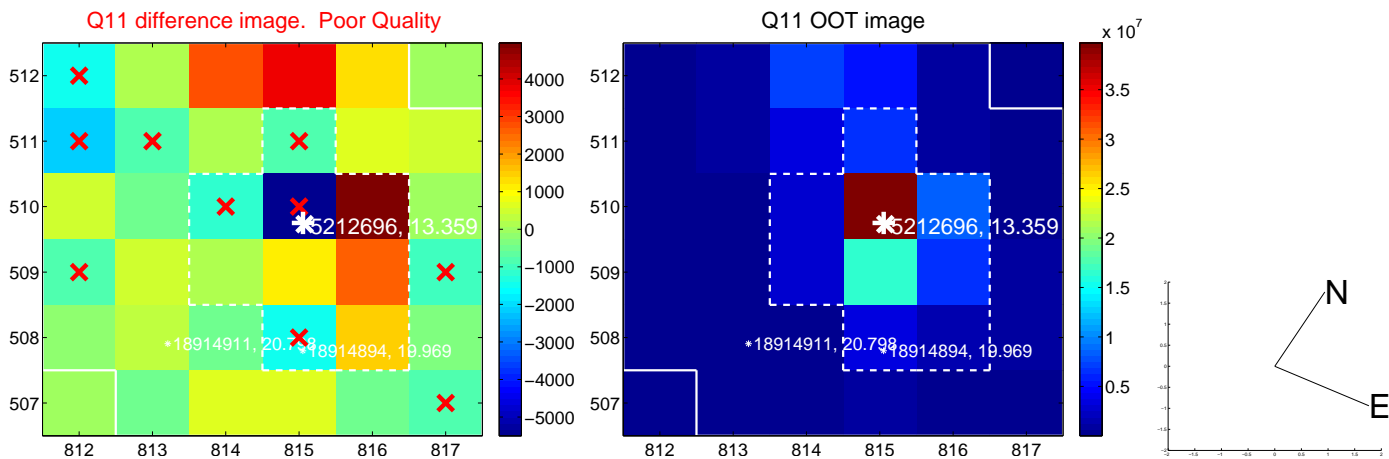
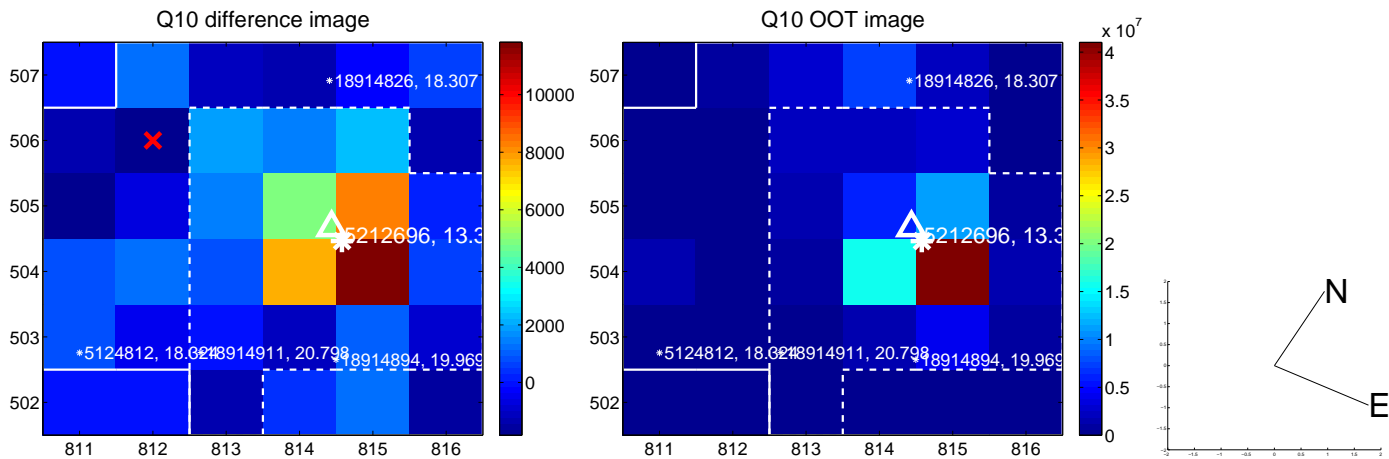
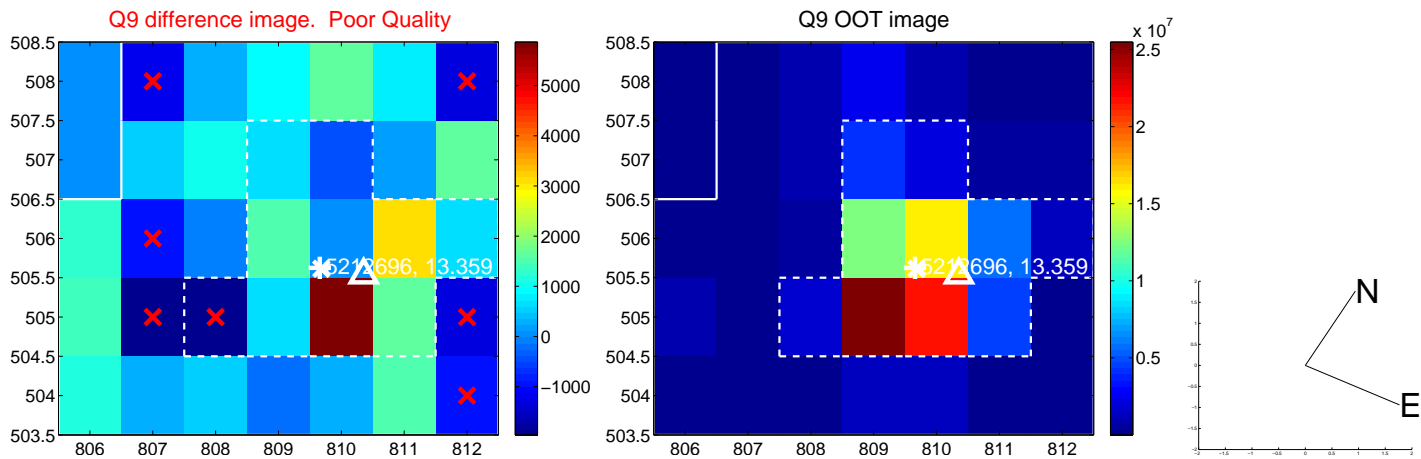
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



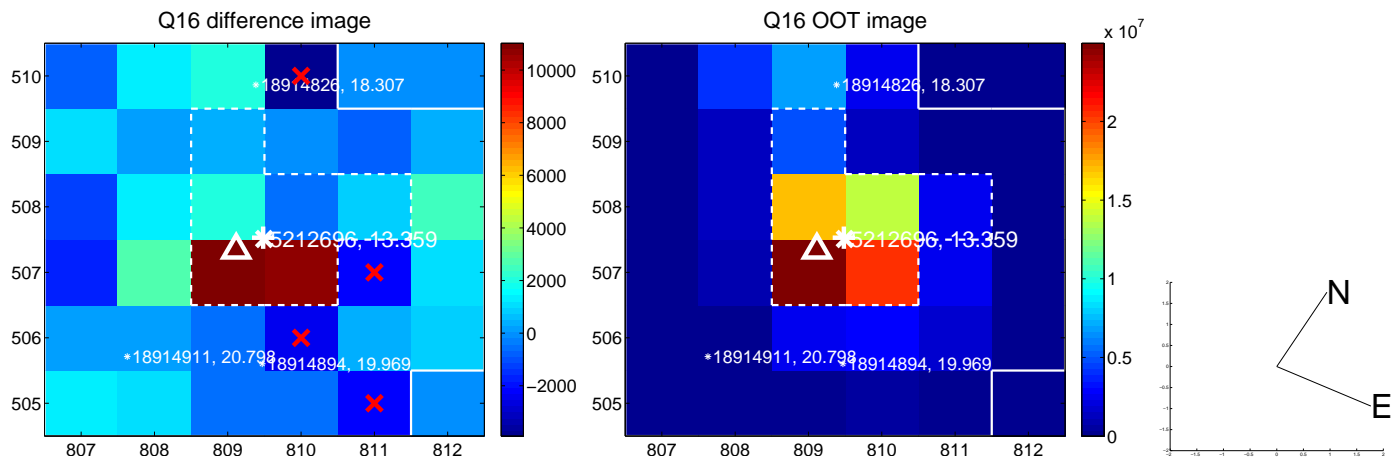
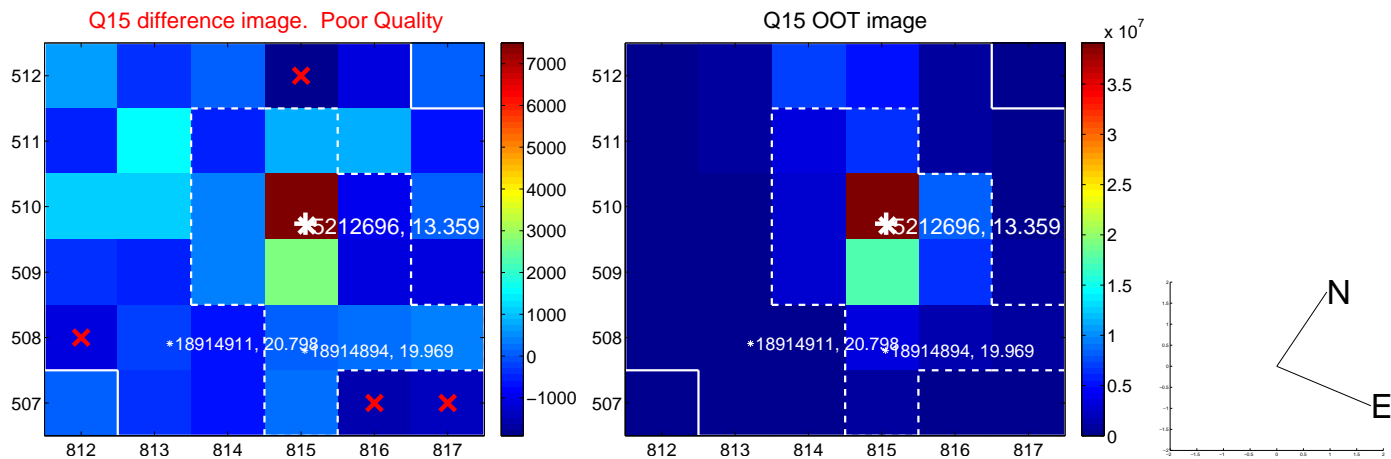
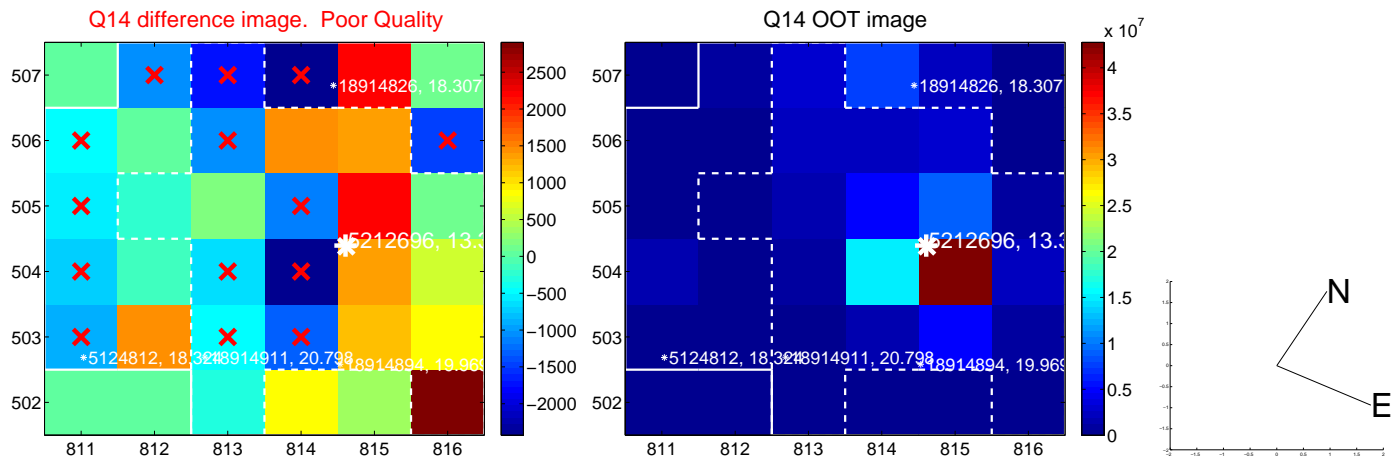
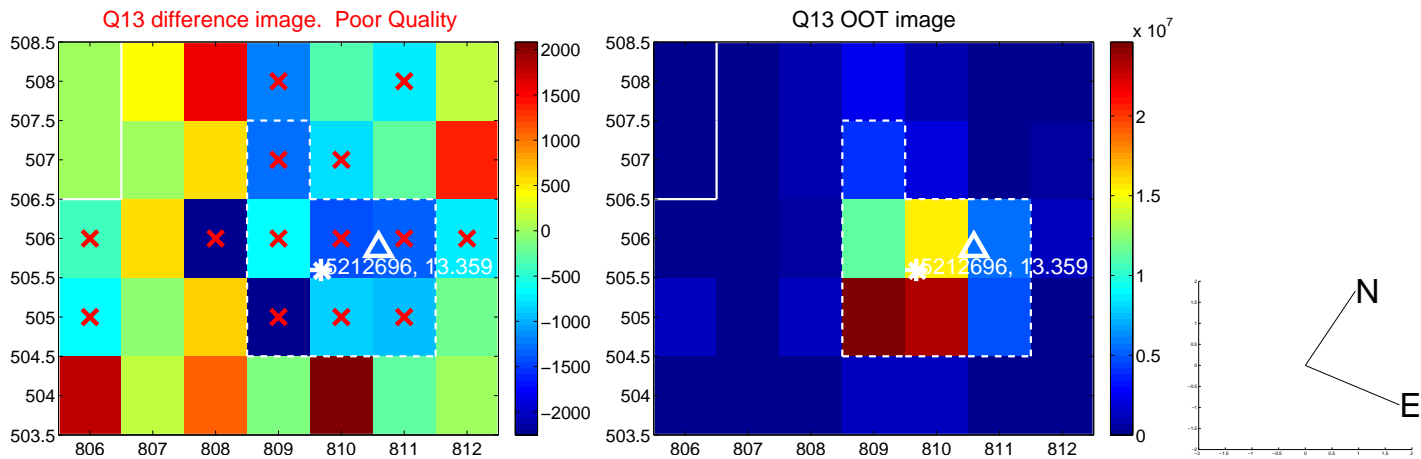
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



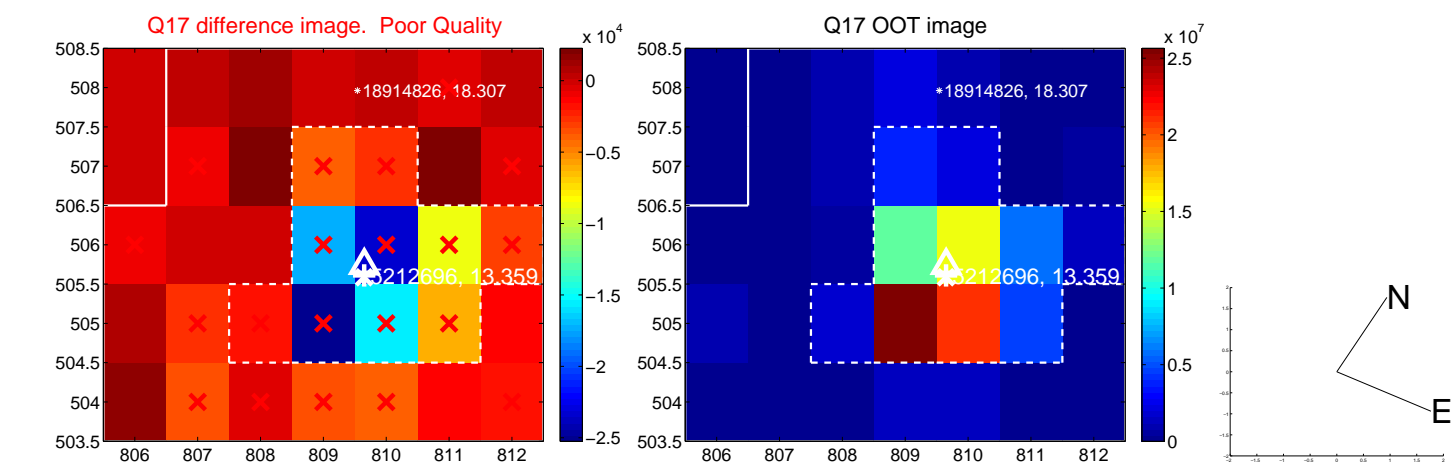
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



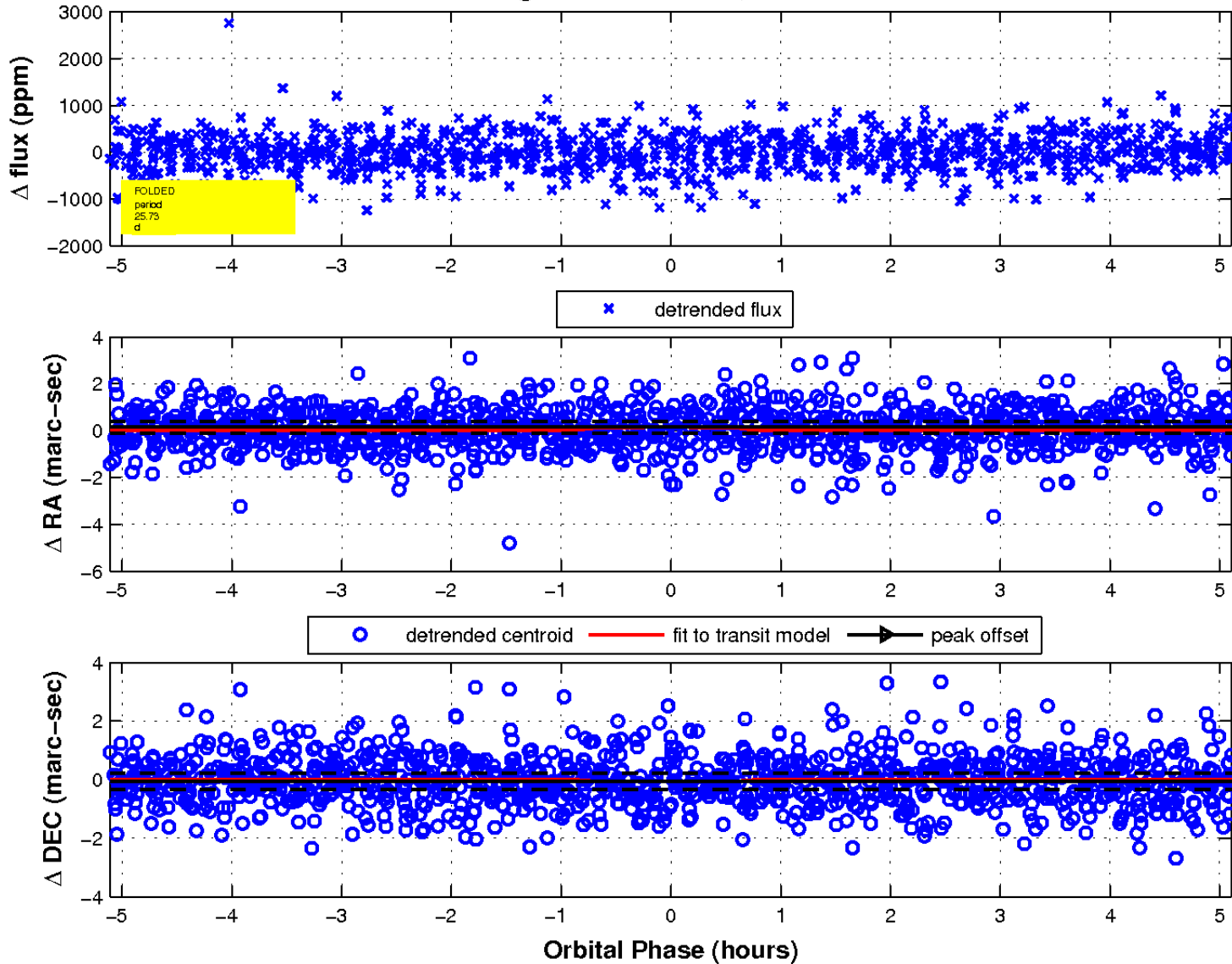
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

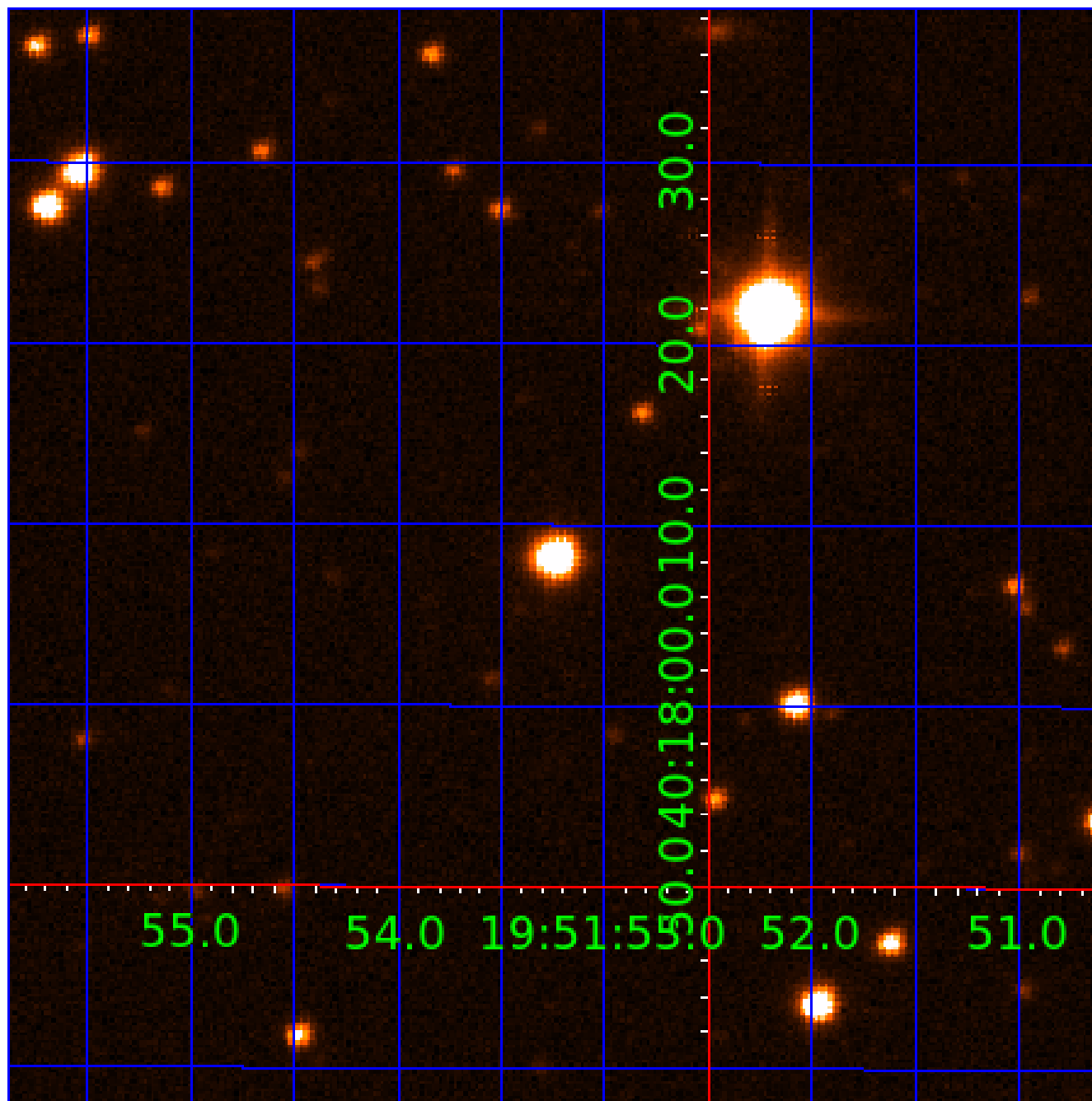


fluxWeightedCentroids, Planet 4 of 5



UKIRT Image

Declination



KIC 005212696

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})
005212696-01	OBS	No	0.653332	131.914297	65.6	1.353	10.2	11.1	1.84	7696	1.78	34752.64
005212696-02	OBS	No	0.653320	131.763094	66.8	1.399	10.3	11.6	1.84	7696	1.75	34753.47
005212696-03	OBS	No	0.653318	132.089907	60.4	1.599	9.5	11.4	1.84	7696	1.66	34753.64
005212696-04	OBS	No	25.726809	134.227936	496.0	1.705	7.9	6.8	1.84	7696	4.76	259.41
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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005212696-01	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—HALO_GHOST
005212696-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD
005212696-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—SAME_NTL_PERIOD
005212696-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
005212696-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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

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

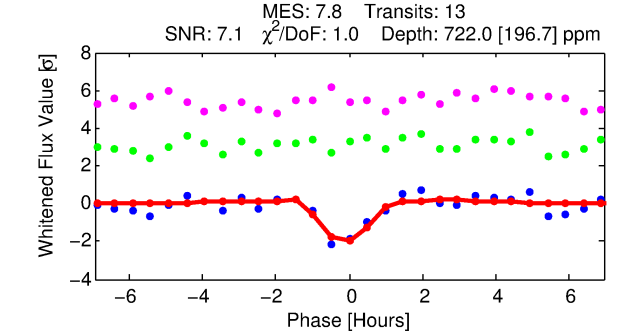
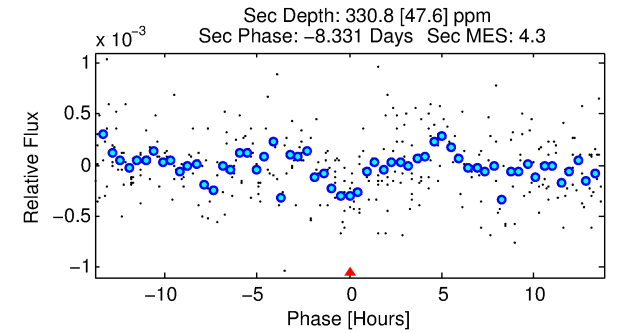
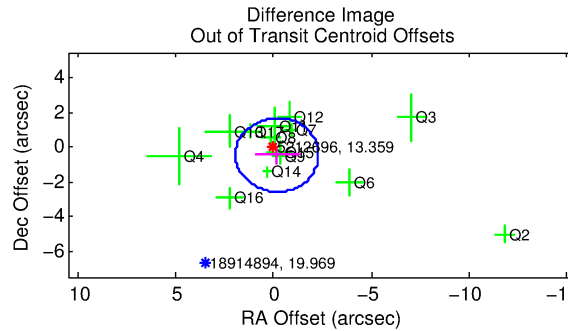
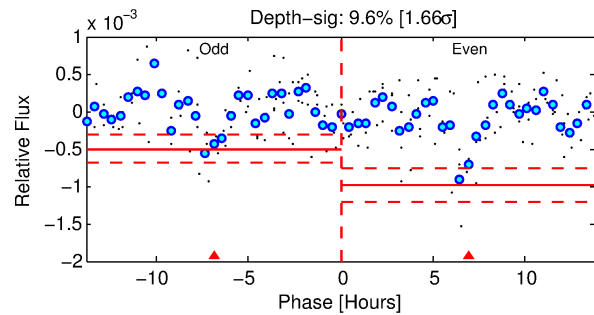
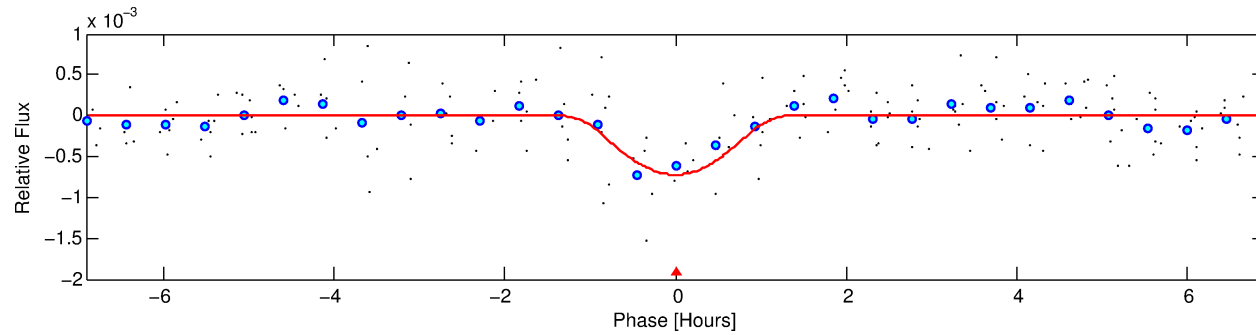
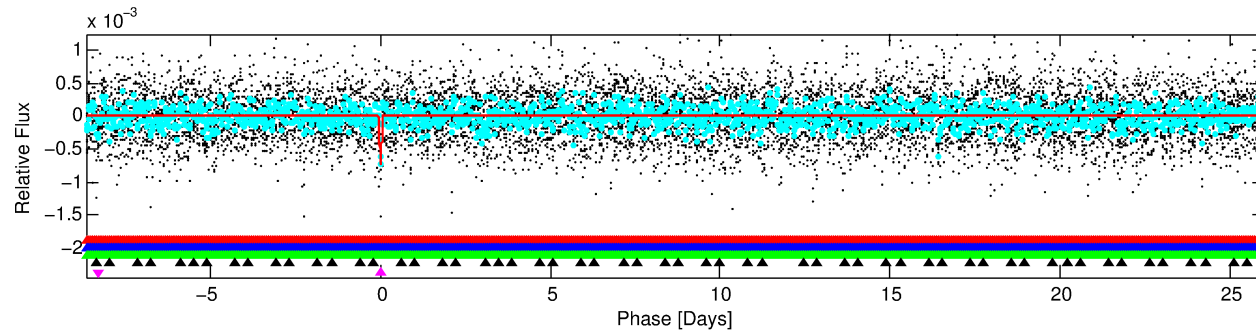
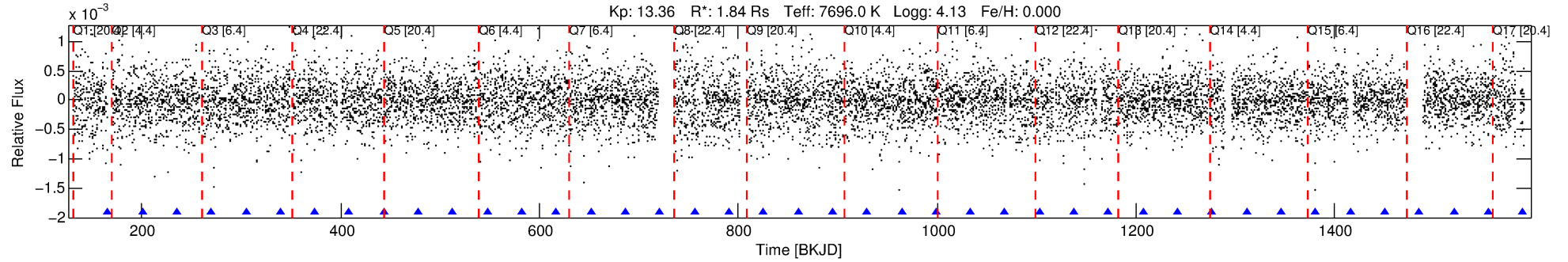
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005212696-05

No Significant Match Found

DV One-Page Summary

KIC: 5212696 Candidate: 5 of 5 Period: 34.711 d



DV Fit Results:

Period = 34.71144 [0.00035] d
Epoch = 165.8769 [0.0075] BKJD
Rp/R* = 0.0392 [0.1402]
a/R* = 36.86 [44.36]
b = 0.99 [0.25]
Seff = 173.99 [65.04]
Teq = 926 [87] K
Rp = 7.87 [28.24] Re
a = 0.2473 [0.0577] AU
Ag = 179.49 [1284.93] [0.14σ]
Teffp = 5241 [9372] K [0.46σ]

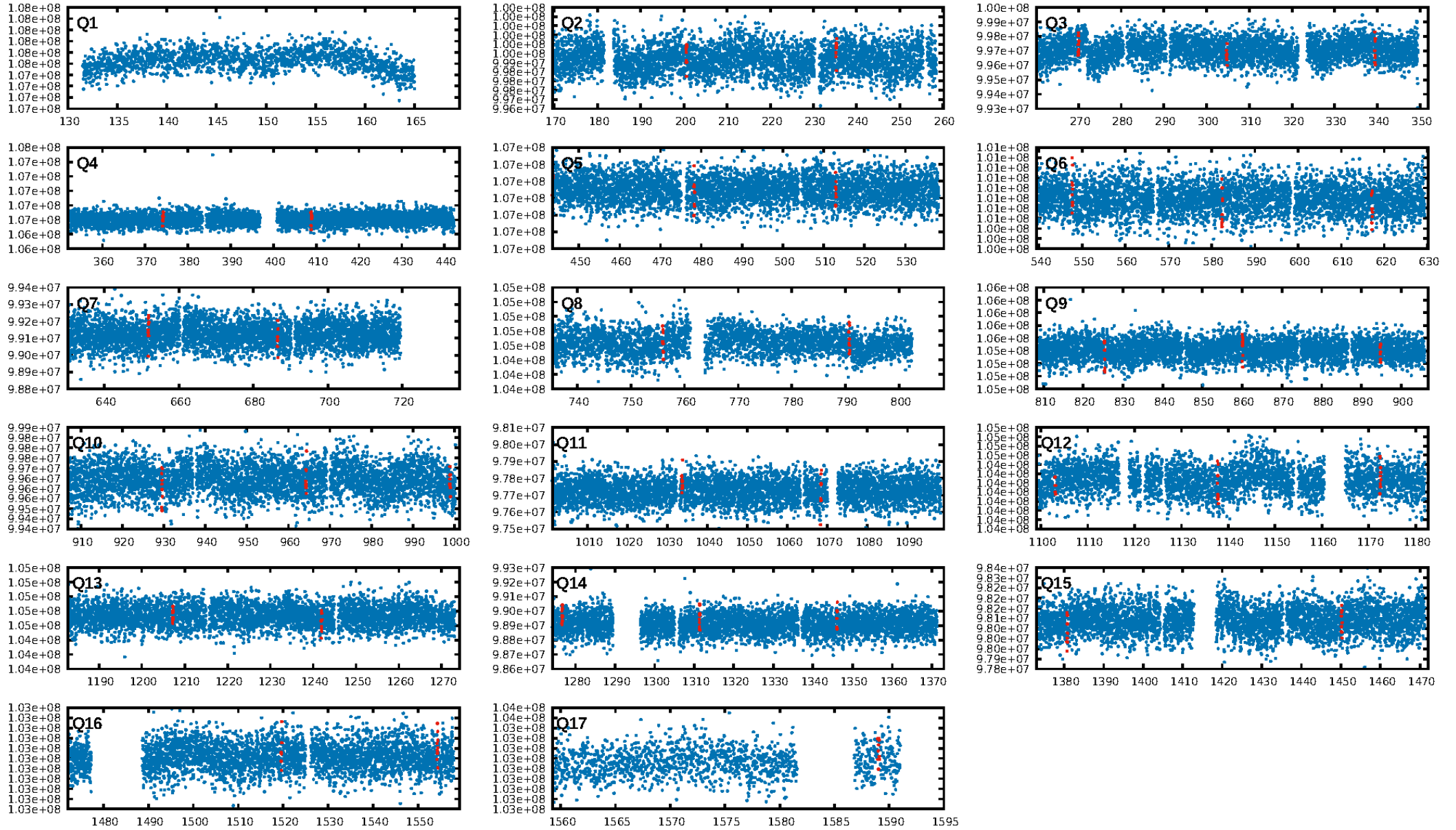
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [75.20σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 17.6%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 7.06e-11
RollingBand-fgt: 1.00 [12/12]
GhostDiagnostic-chr: -1.152
Centroid-sig: 4.3%
Centroid-so: 0.667 arcsec [1.83σ]
OotOffset-rm: 0.471 arcsec [0.66σ]
KicOffset-rm: 0.490 arcsec [0.55σ]
OotOffset-st: 3/4/4/3 [14]
KicOffset-st: 3/4/4/3 [14]
DiffImageQuality-fgm: 0.21 [3/14]
DiffImageOverlap-fno: 0.00 [0/16]

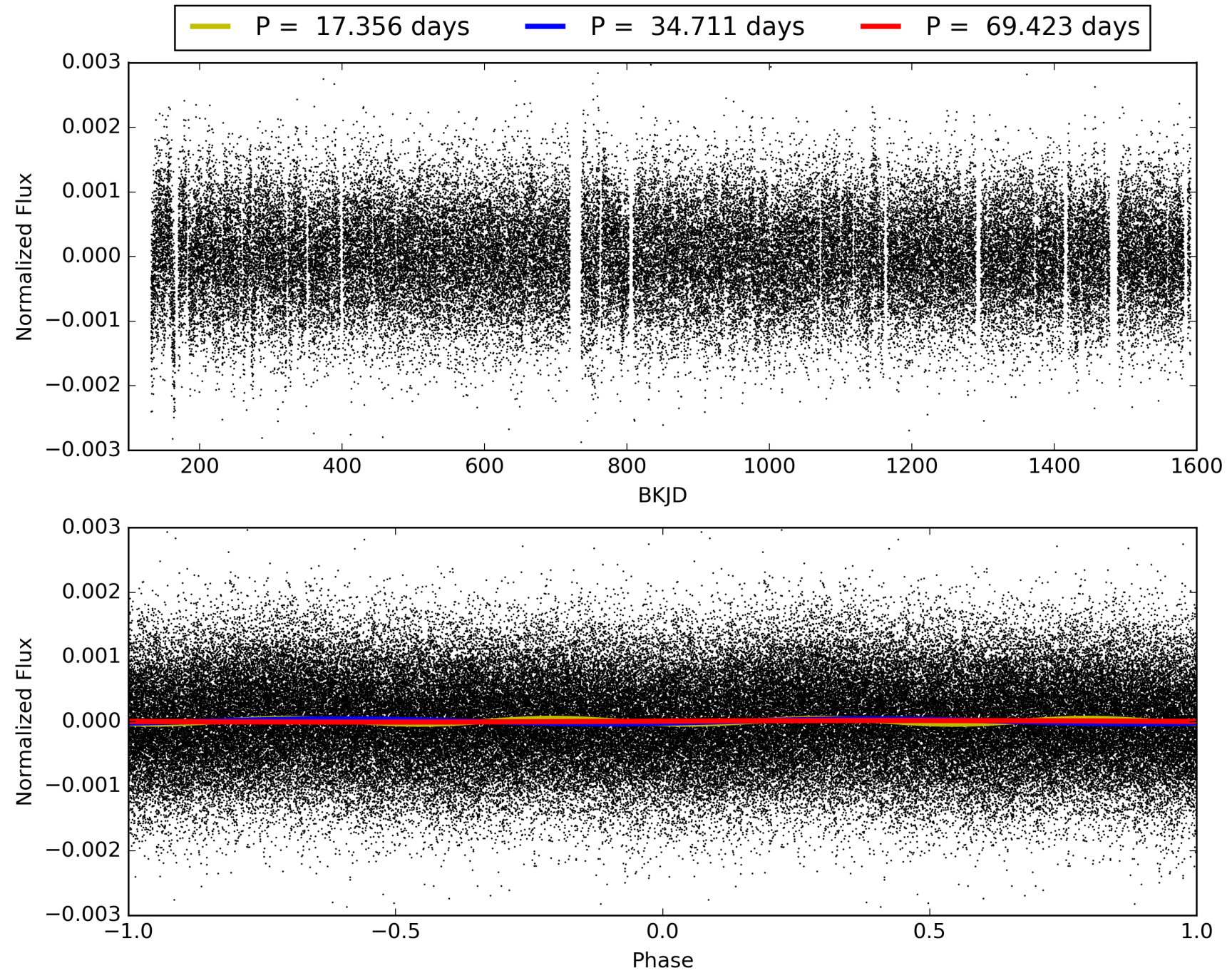
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 13:49:19 Z

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

TCE 005212696-05, PDC Light Curves

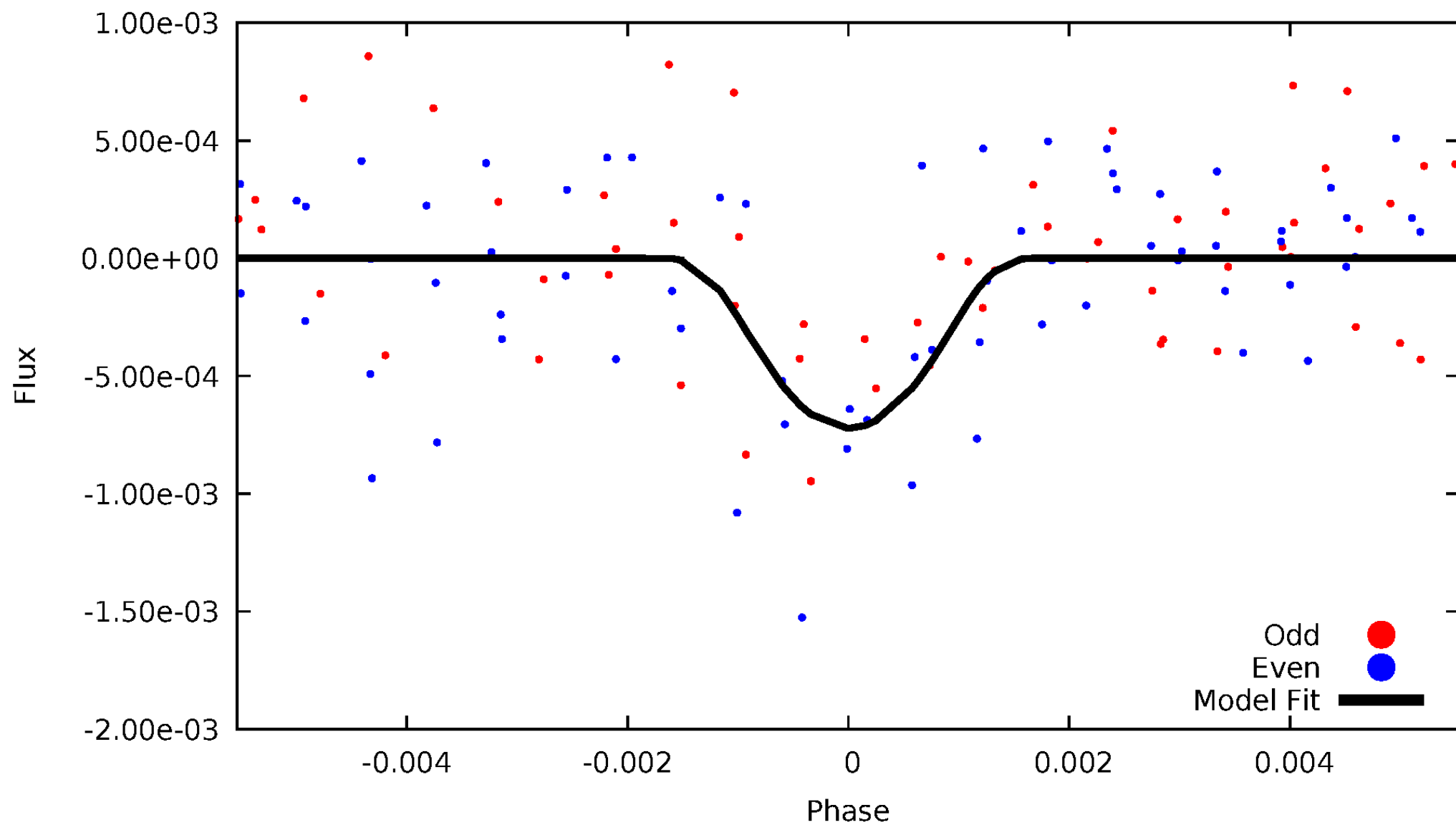


TCE 005212696-05



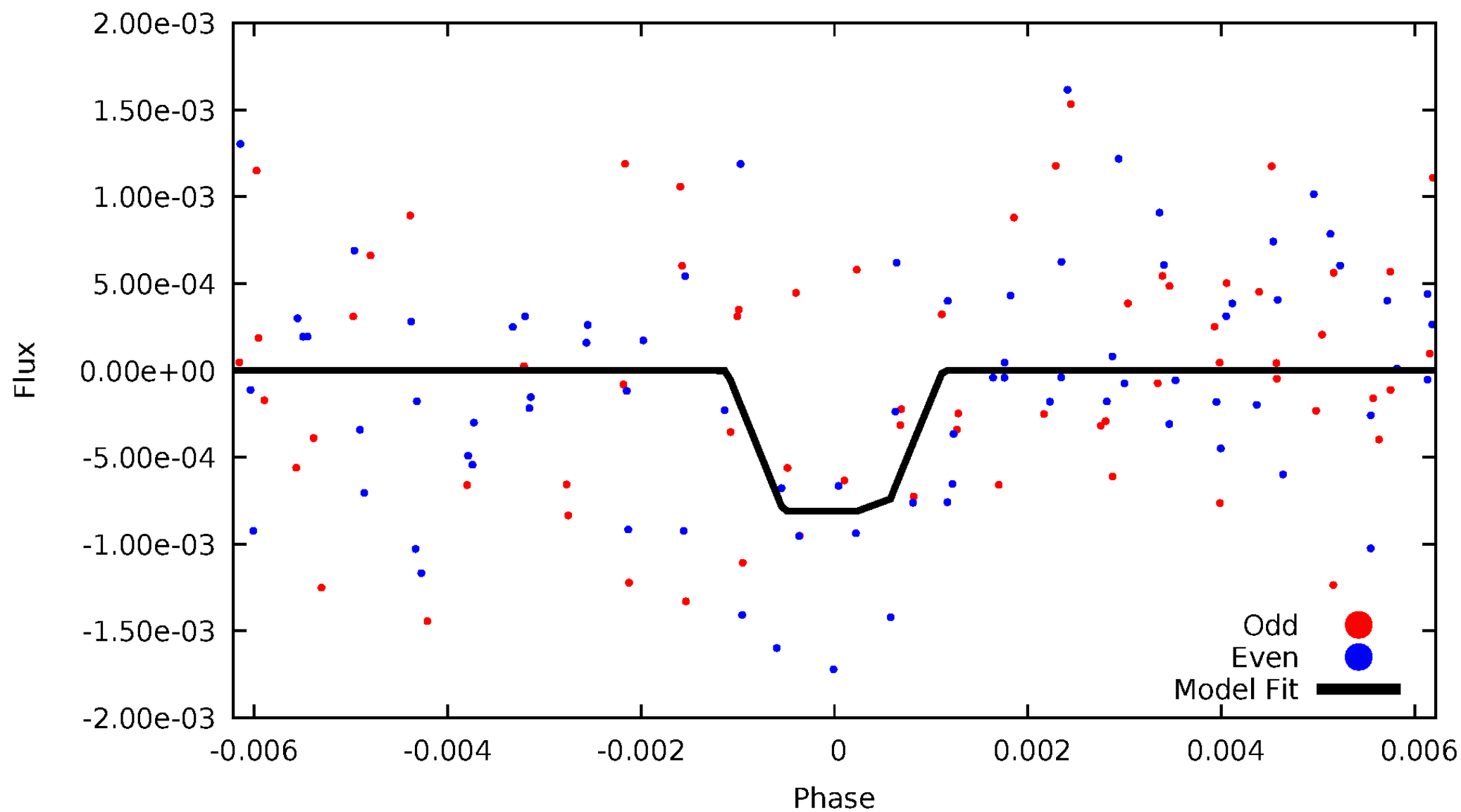
DV Odd/Even

TCE 005212696-05



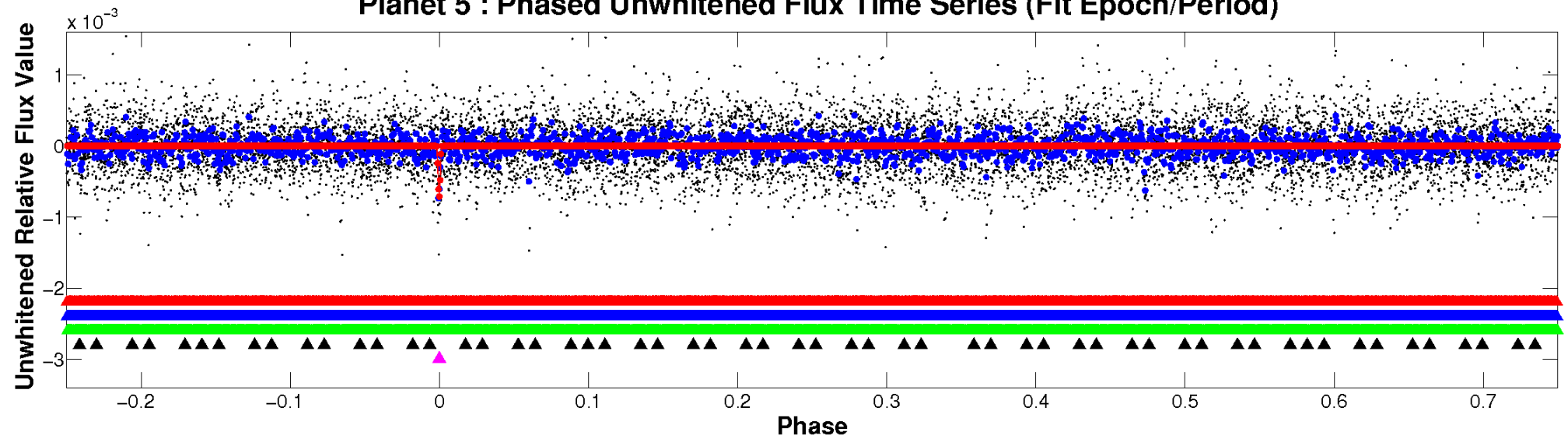
ALT Odd/Even

TCE 005212696-05

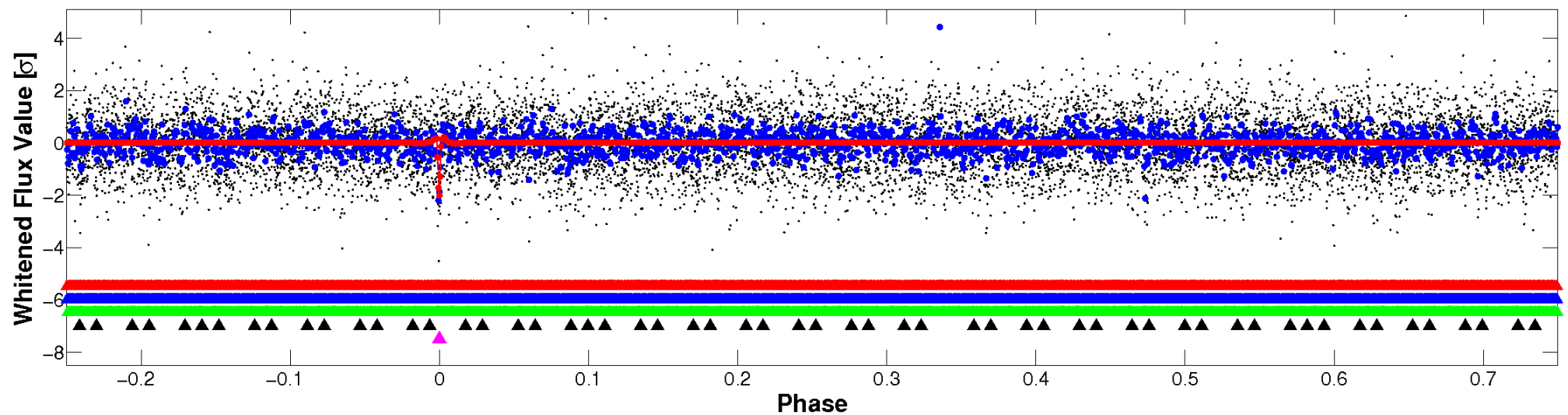


Non-Whitened Vs. Whitened Light Curve

Planet 5 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

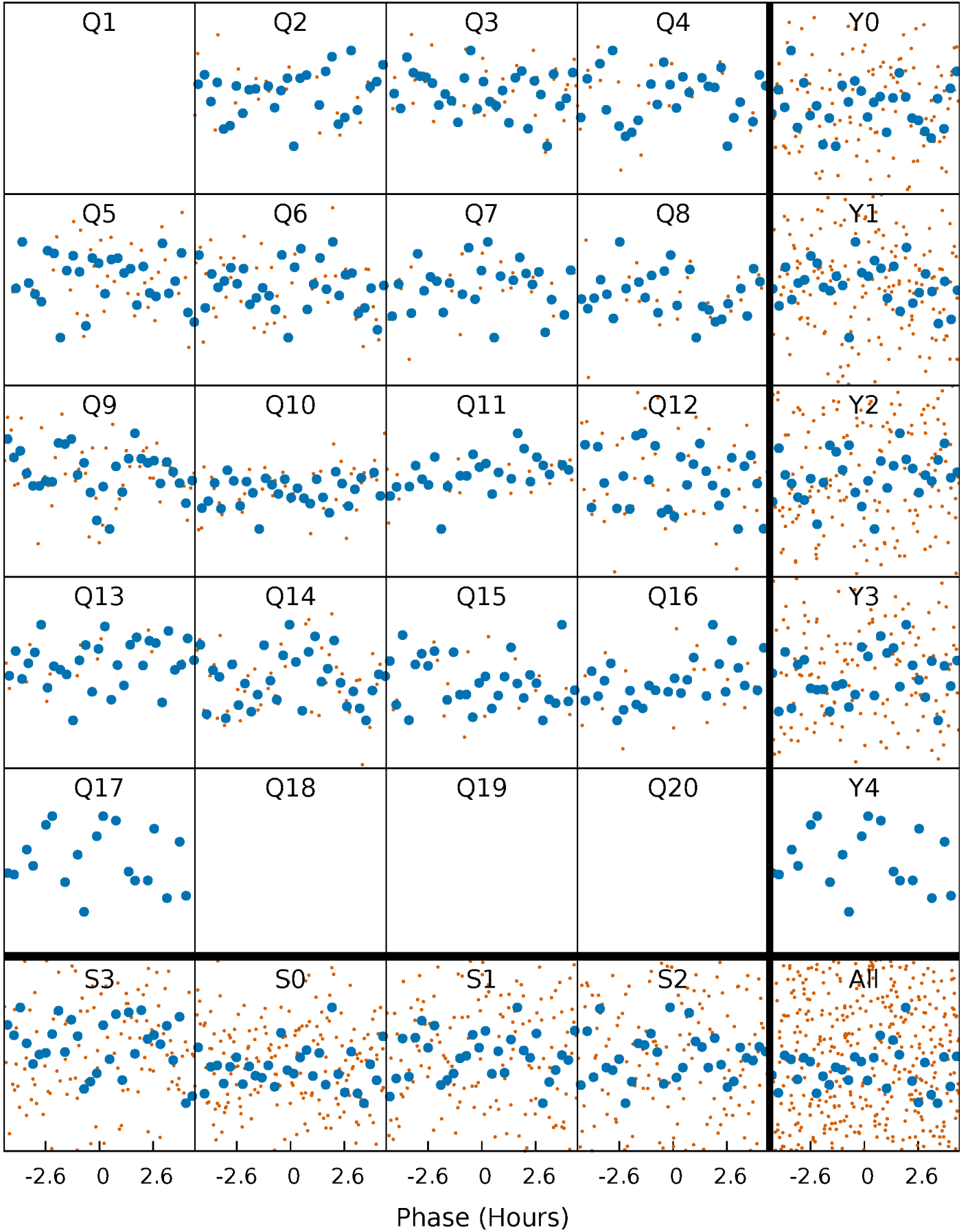


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



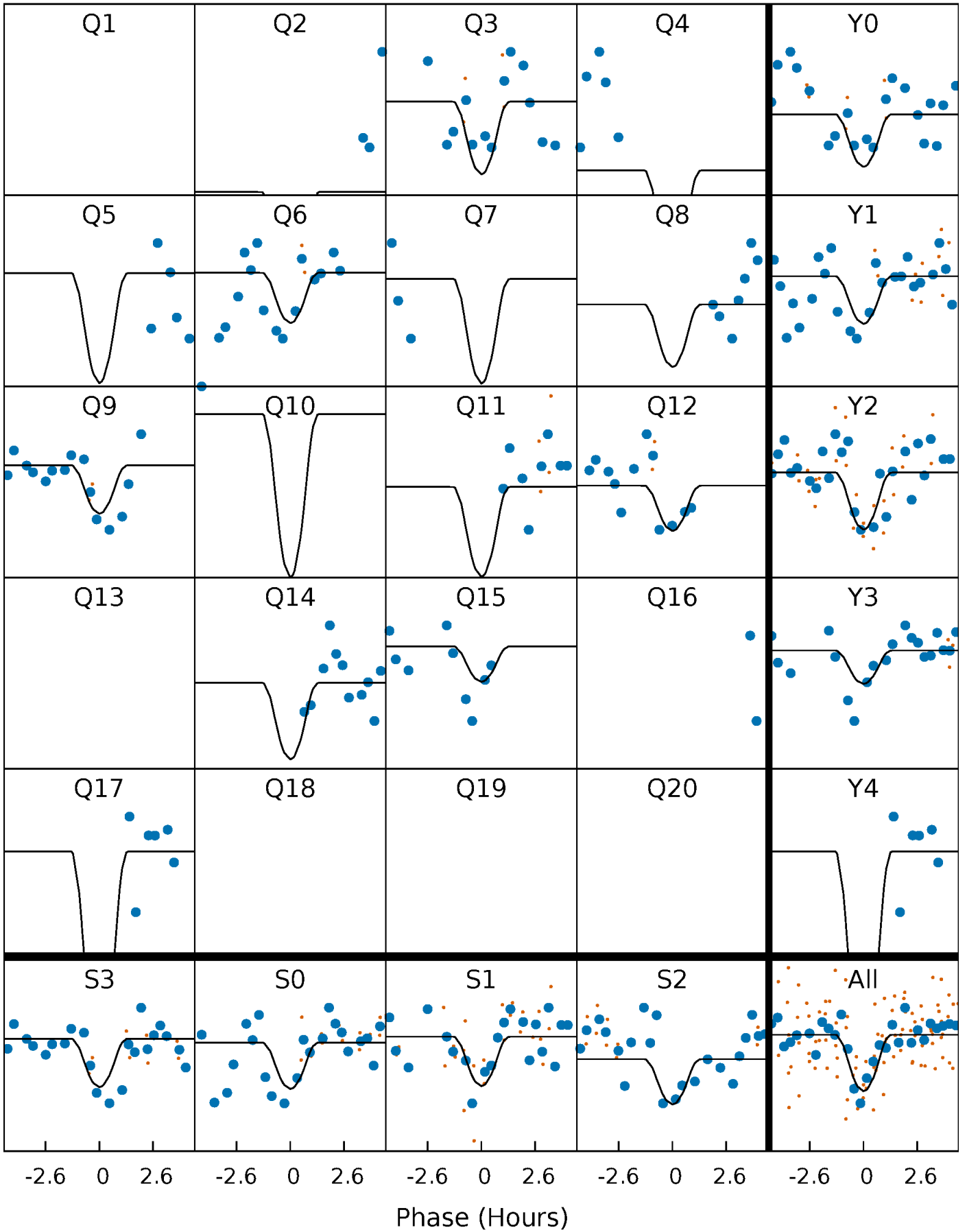
PDC Quarter-Phased Transit Curves

TCE 005212696-05 $P = 34.711445$ Days $T_0 = 165.876923$ (BKJD)



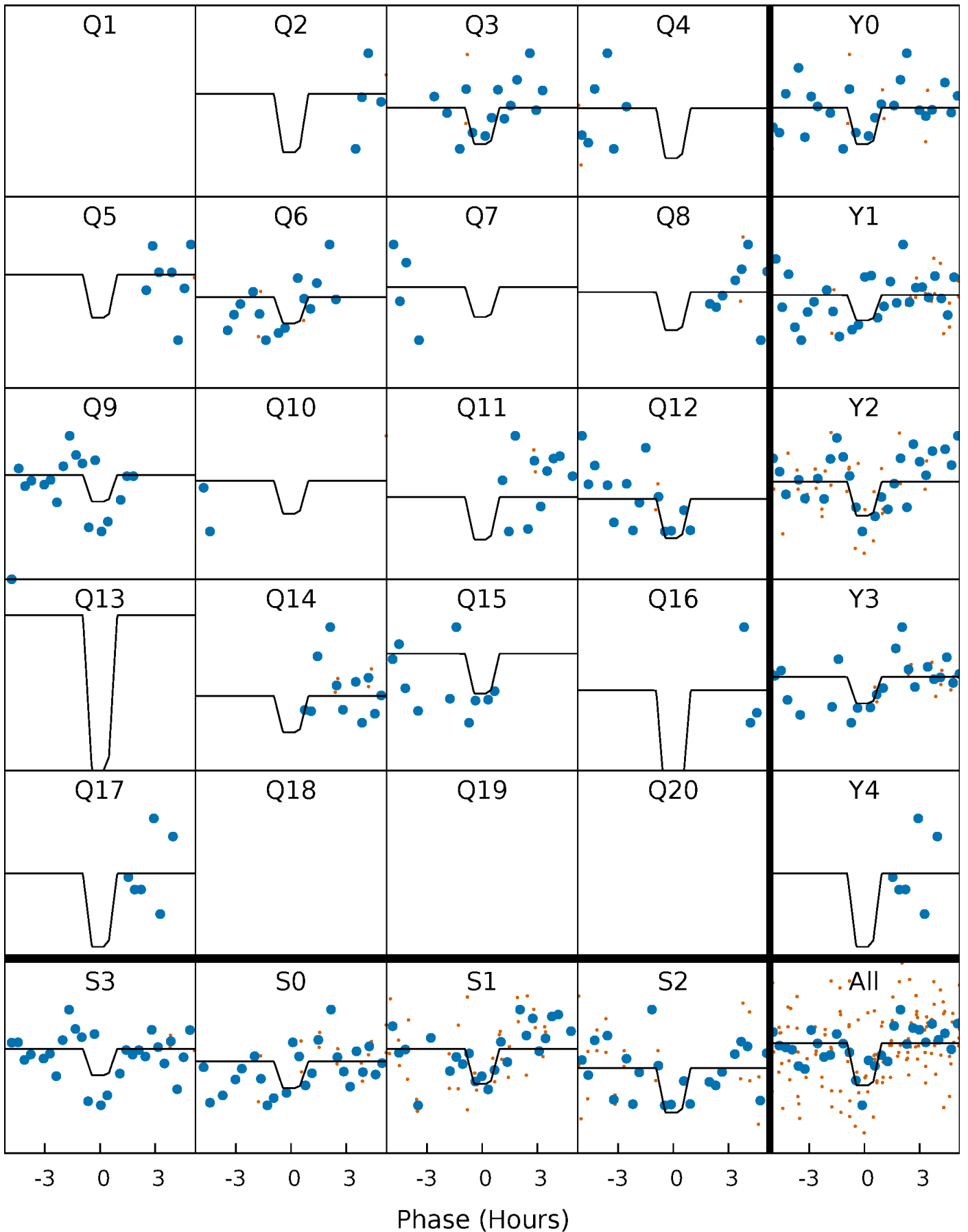
DV Quarter-Phased Transit Curves

TCE 005212696-05 P= 34.711445 Days $T_0=165.876923$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

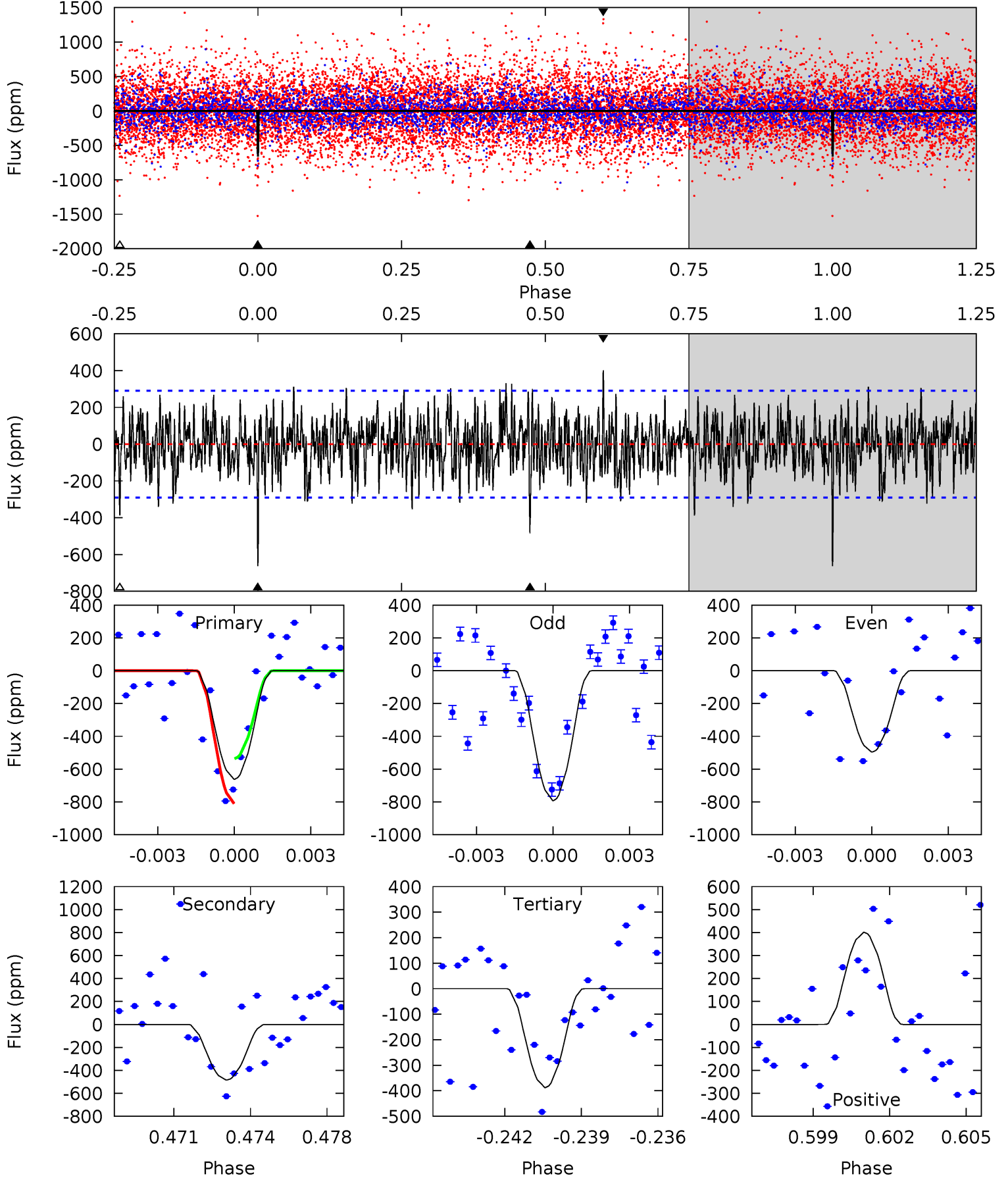
TCE 005212696-05 $P = 34.711333$ Days $T_0 = 165.878959$ (BKJD)



DV Model-Shift Uniqueness Test

005212696-05, P = 34.711445 Days, E = 131.165478 Days

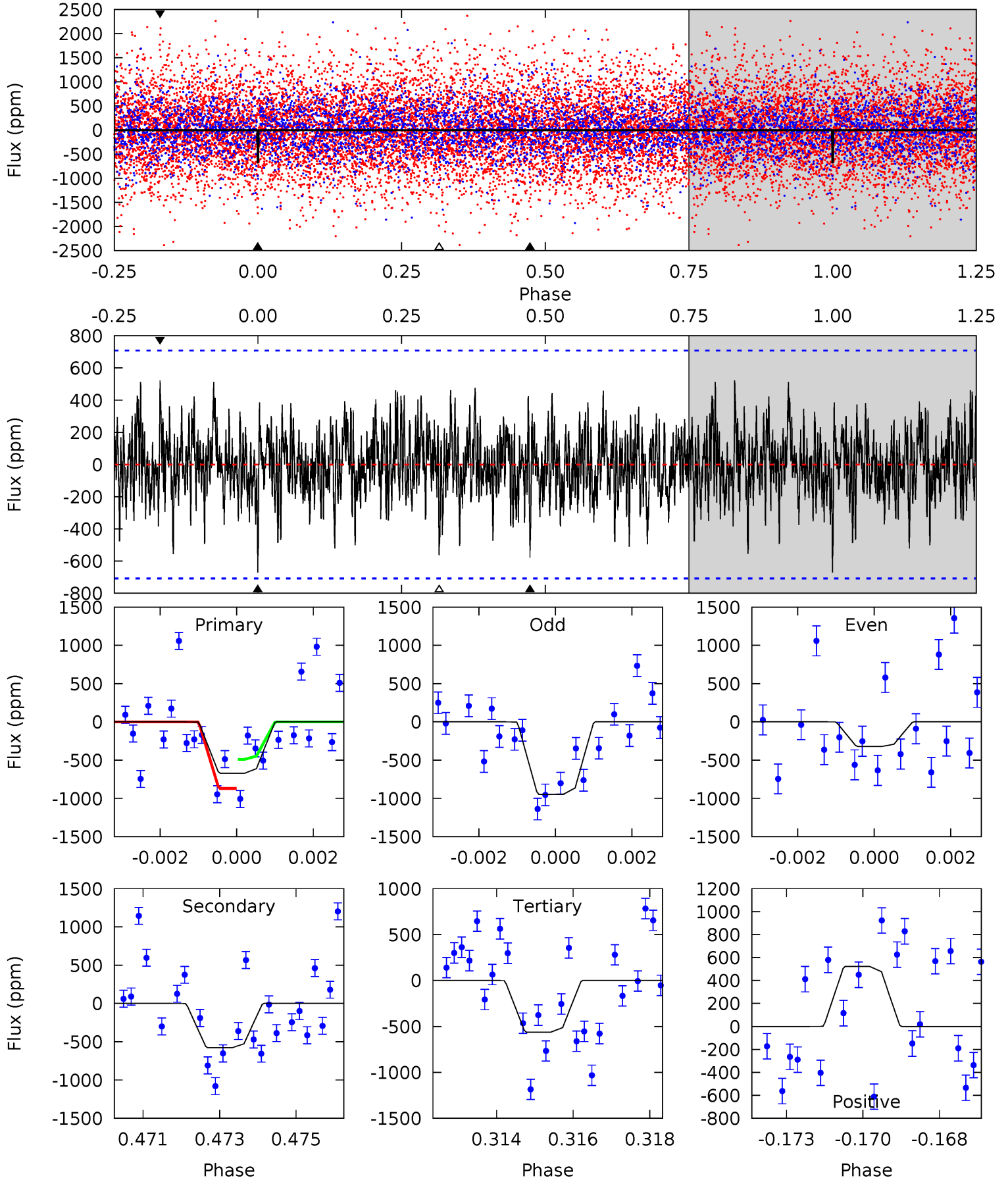
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.0	8.74	6.99	7.24	5.24	2.94	2.11	4.96	4.71	1.75	1.50	2.68	0.32	0.38	2.48



Alt Model-Shift Uniqueness Test

005212696-05, P = 34.711333 Days, E = 131.167626 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.03	4.34	4.22	3.92	5.31	3.06	1.27	0.81	1.11	0.12	0.42	2.35	1.16	0.44	1.42



Stellar Parameters For KIC 005212696

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7696^{+214}_{-322}	$4.132^{+0.120}_{-0.180}$	$0.000^{+0.200}_{-0.350}$	$1.840^{+0.519}_{-0.346}$	$1.673^{+0.194}_{-0.267}$	$0.378^{+0.218}_{-0.188}$
	+3%/-4%	+3%/-4%	+inf%/-inf%	+28%/-19%	+12%/-16%	+58%/-50%
Source	KIC0	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 005212696-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-484 ± 55	$22.47^{+21.91}_{-15.10}$	1299^{+95}_{-74}	3733^{+2124}_{-716}	31^{+259}_{-23}
Alt.	-579 ± 133	$21.51^{+22.77}_{-15.23}$	1294^{+102}_{-79}	3902^{+2614}_{-785}	41^{+447}_{-32}

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

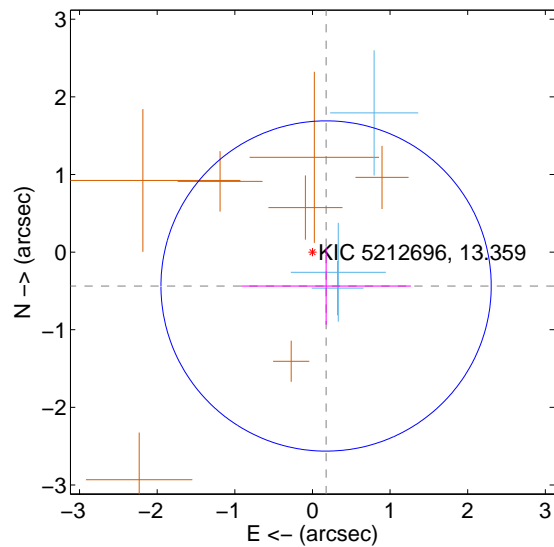
Supplemental centroid analysis for 005212696-05. Kepler magnitude: 13.36. Transit SNR 7.11

There are 3 quarters with good PRF difference image offsets

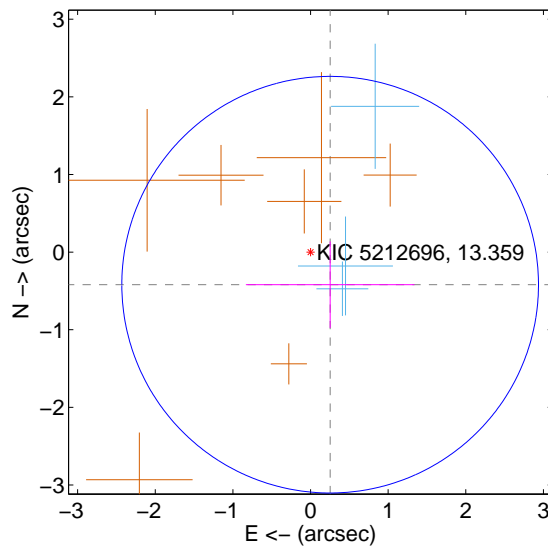
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.471 ± 0.709	0.66	-0.176 ± 1.093	-0.437 ± 0.498
PRF-fit source offset from KIC position	0.490 ± 0.894	0.55	-0.253 ± 1.086	-0.420 ± 0.557
photometric centroid source offset	0.67 ± 0.37	1.83	0.08 ± 0.35	0.66 ± 0.37

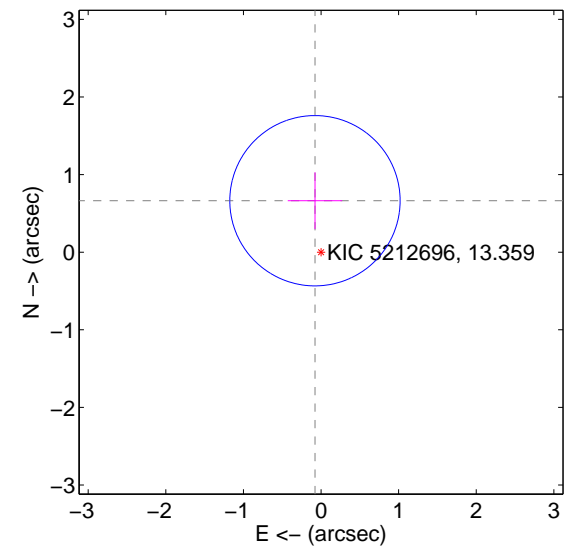
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

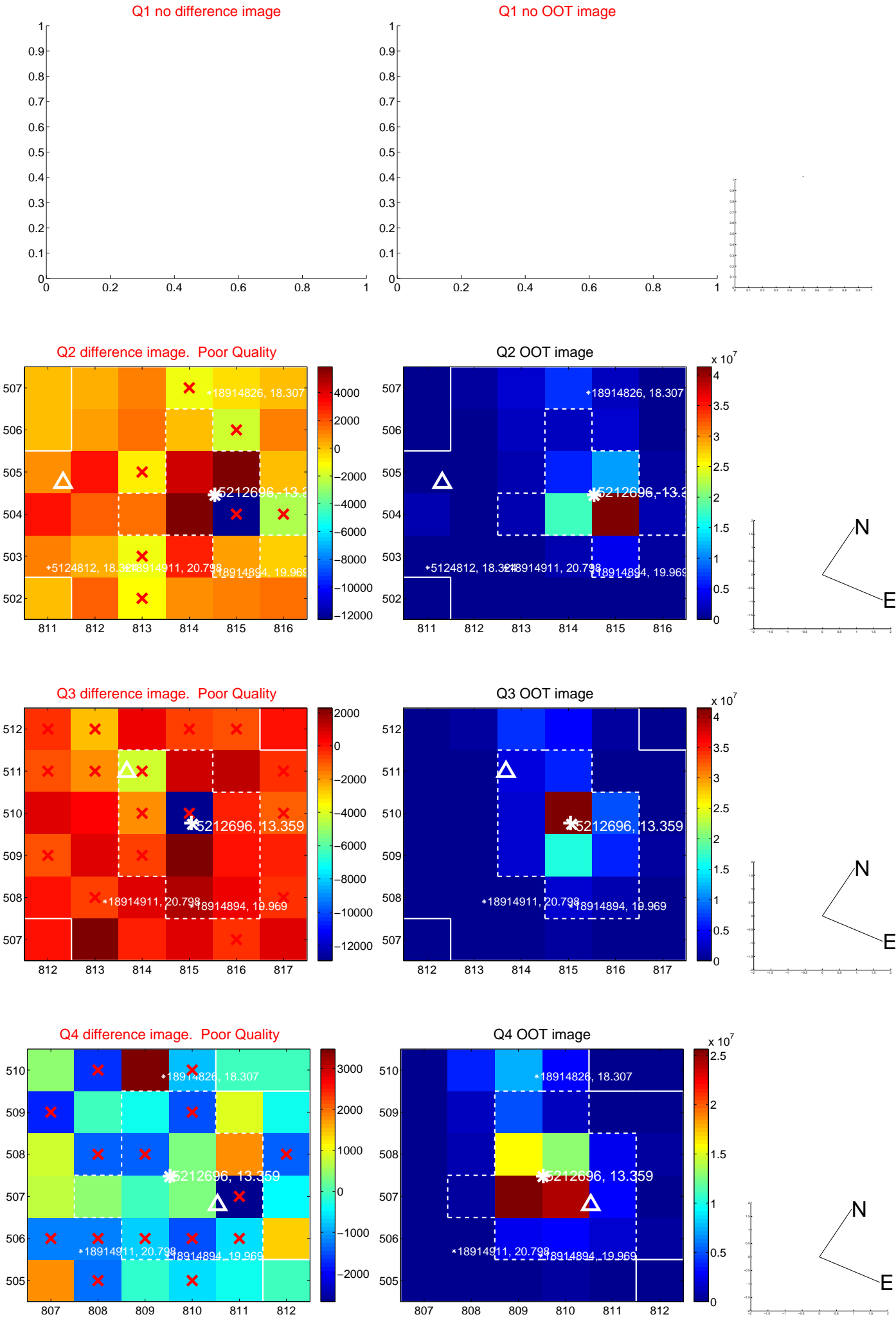


offset from photometric centroids

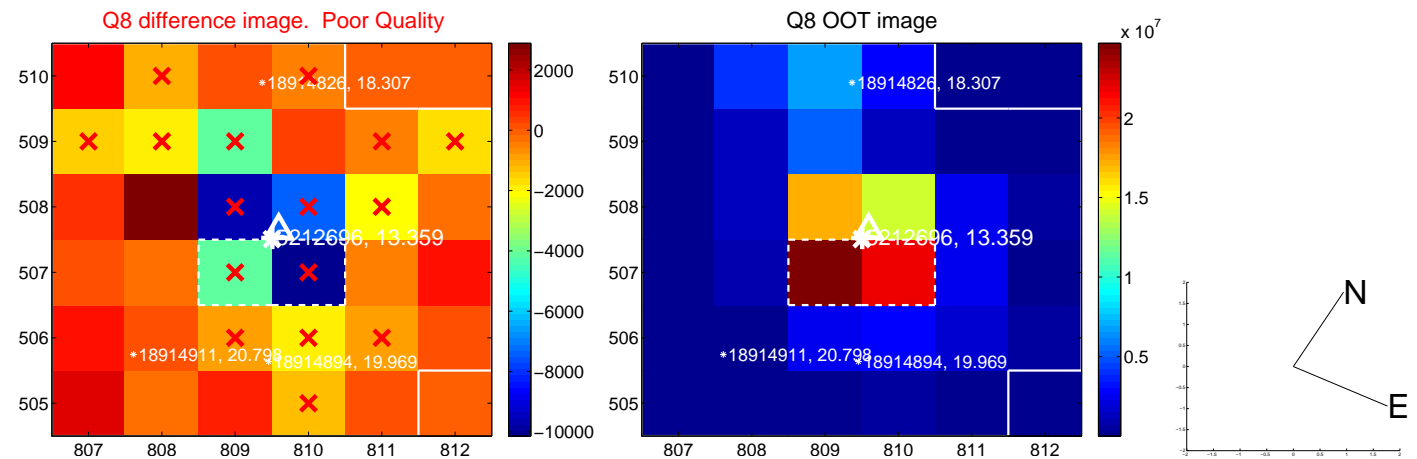
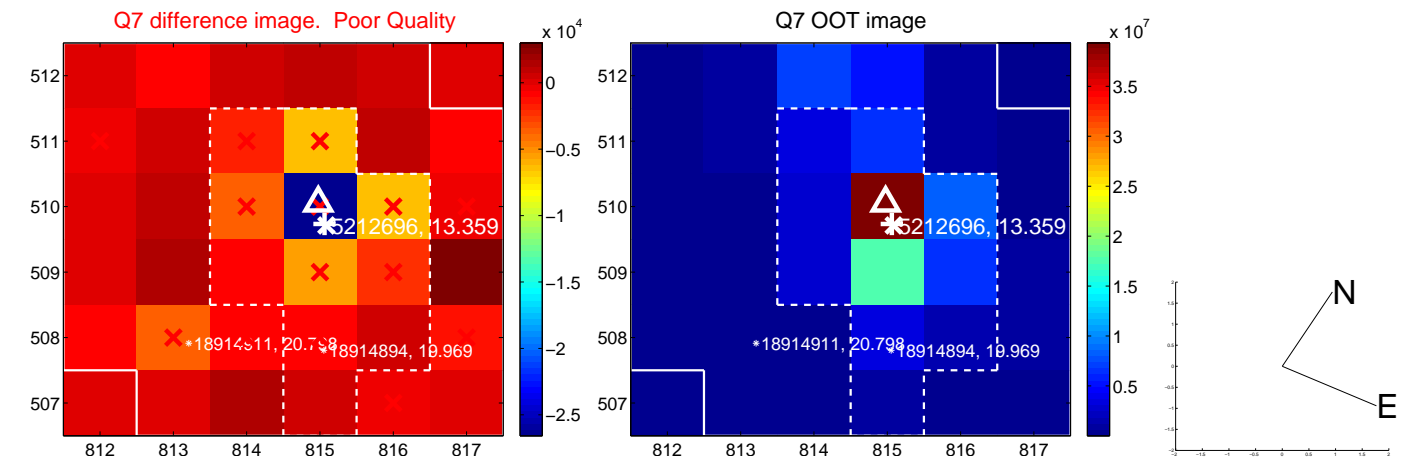
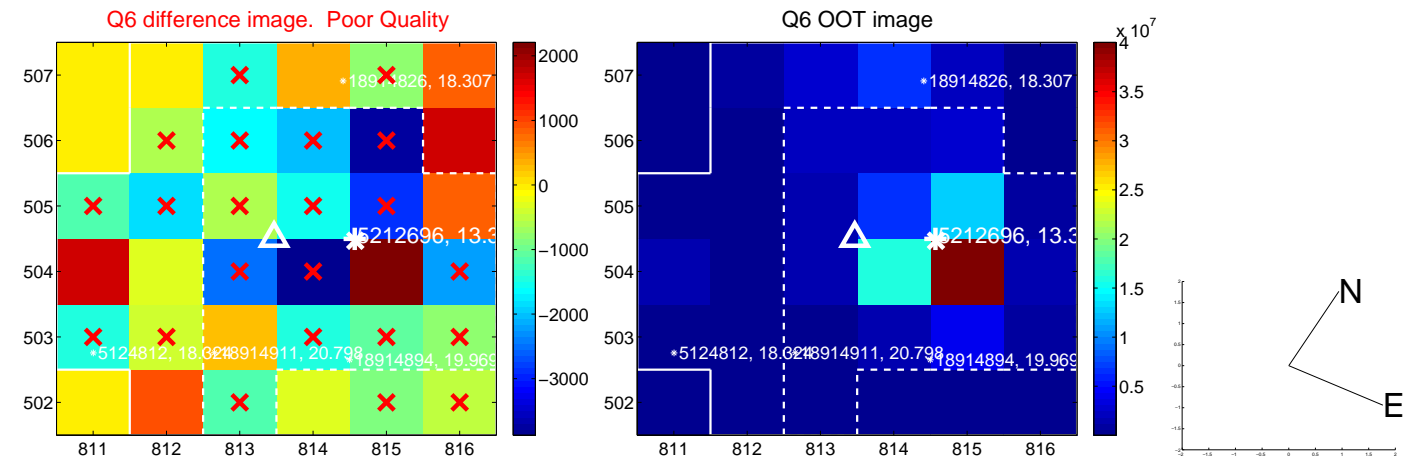
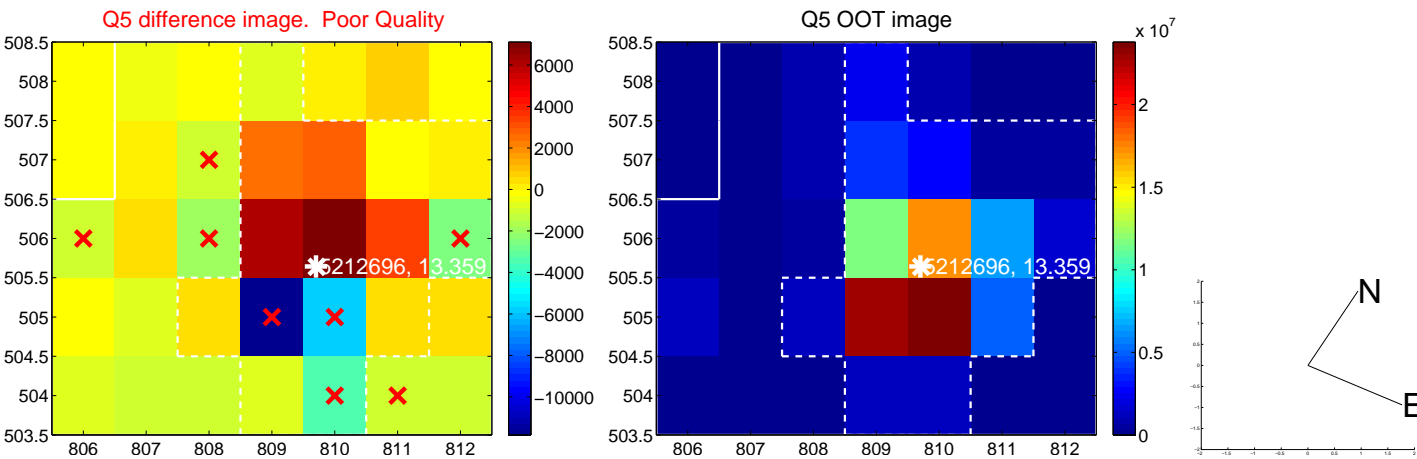


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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.

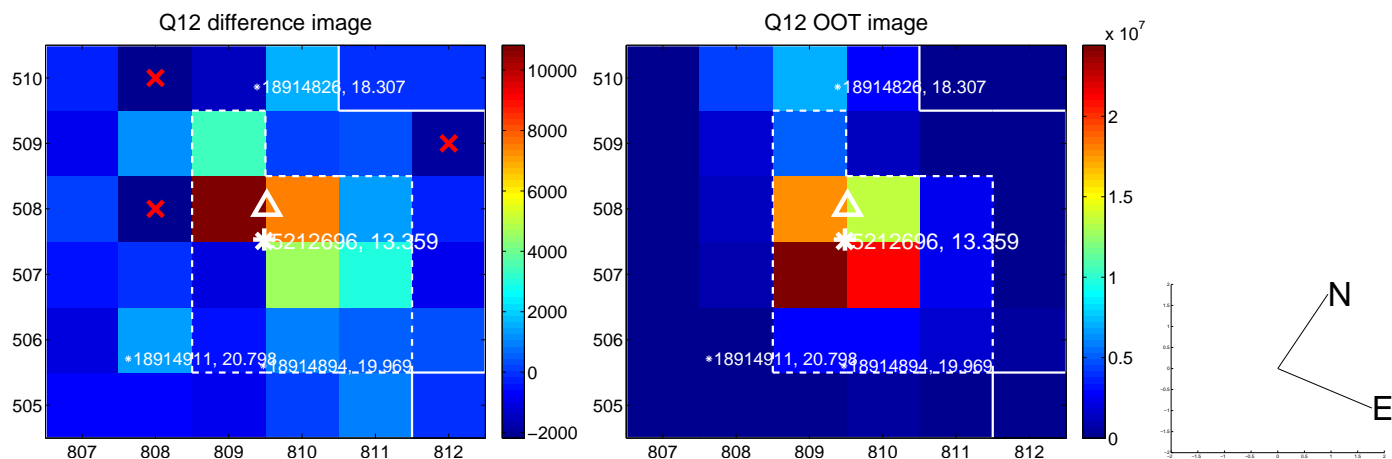
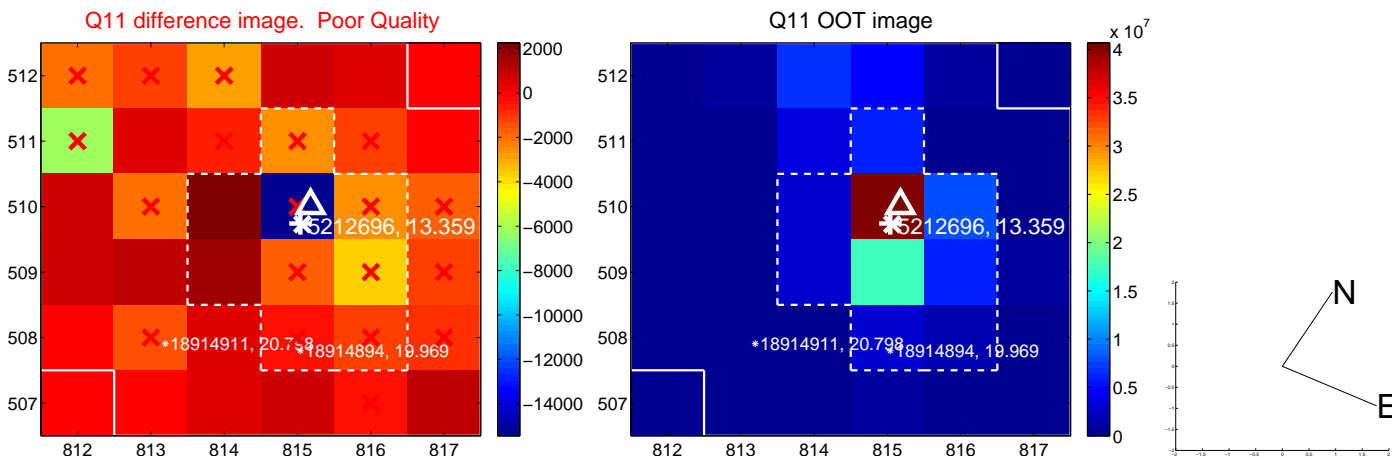
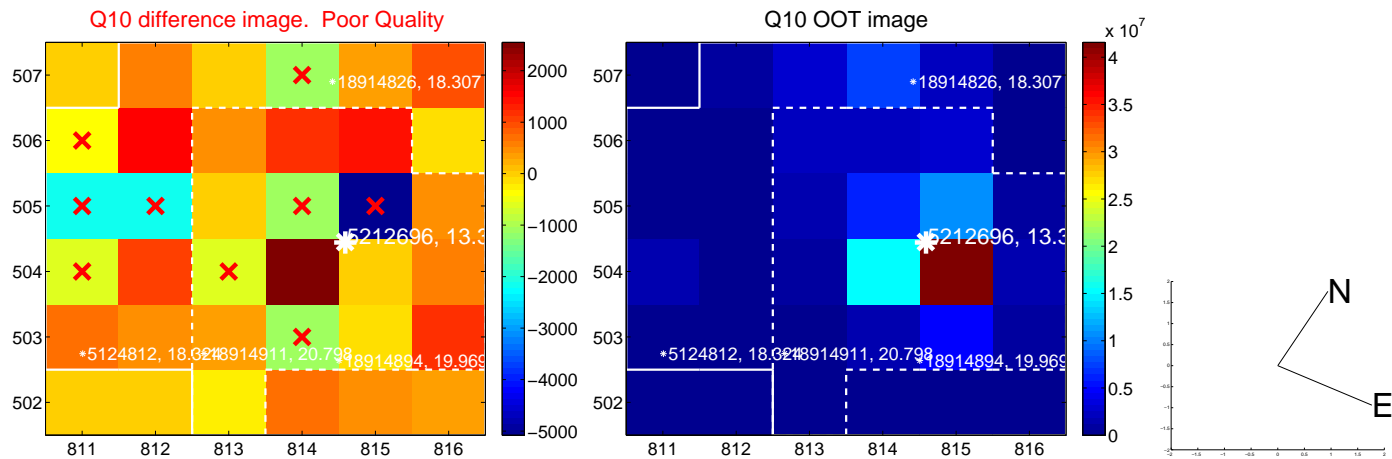
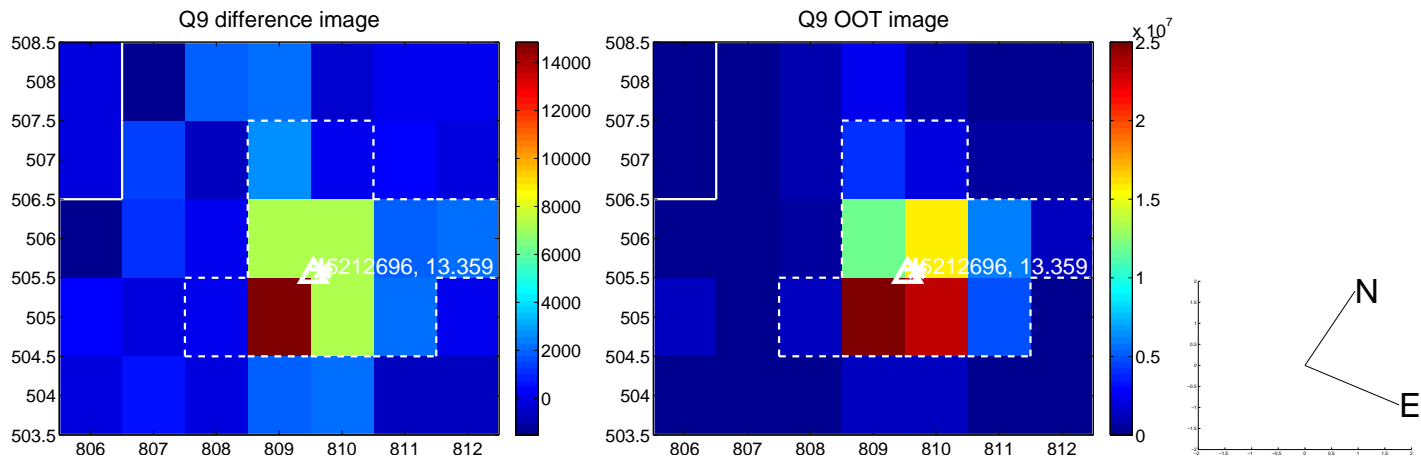
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



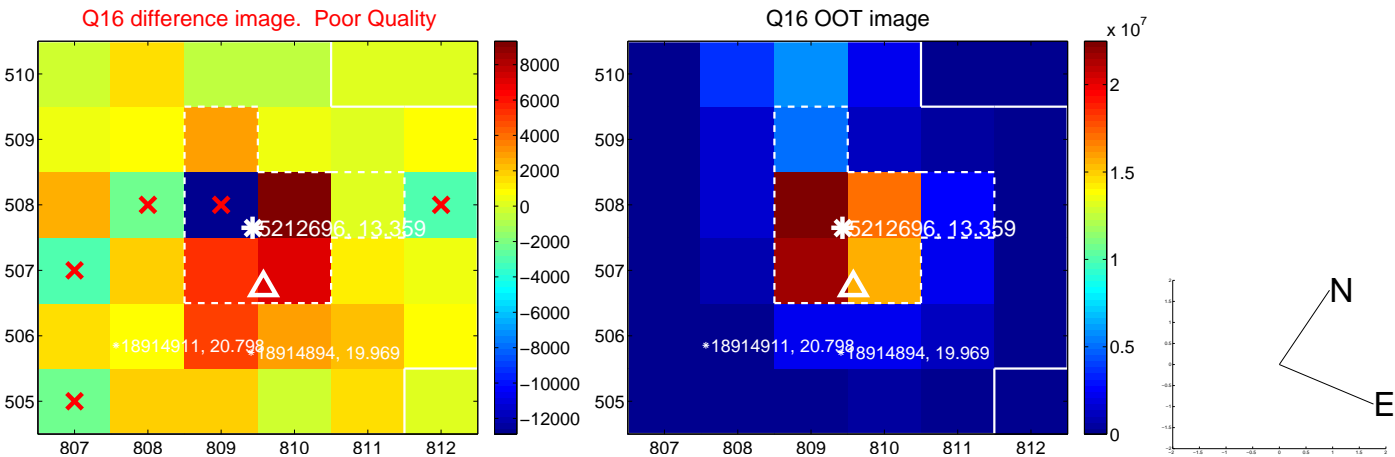
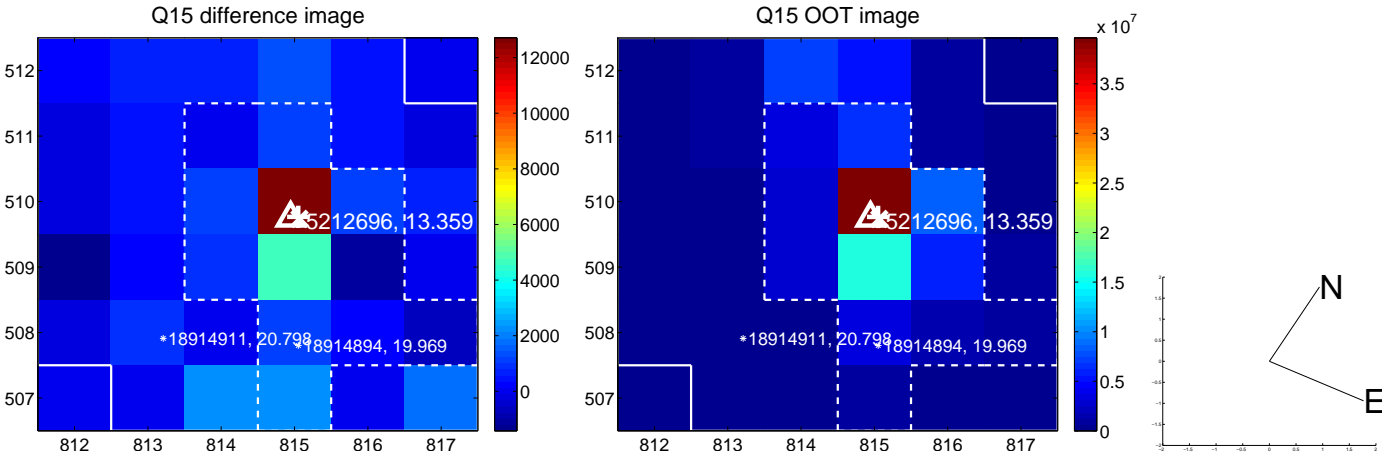
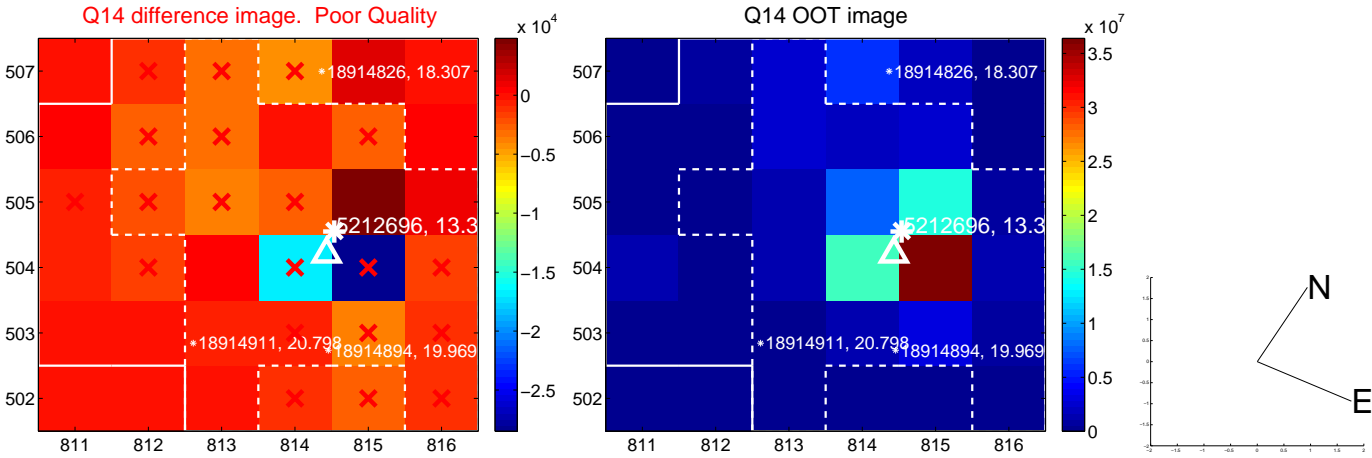
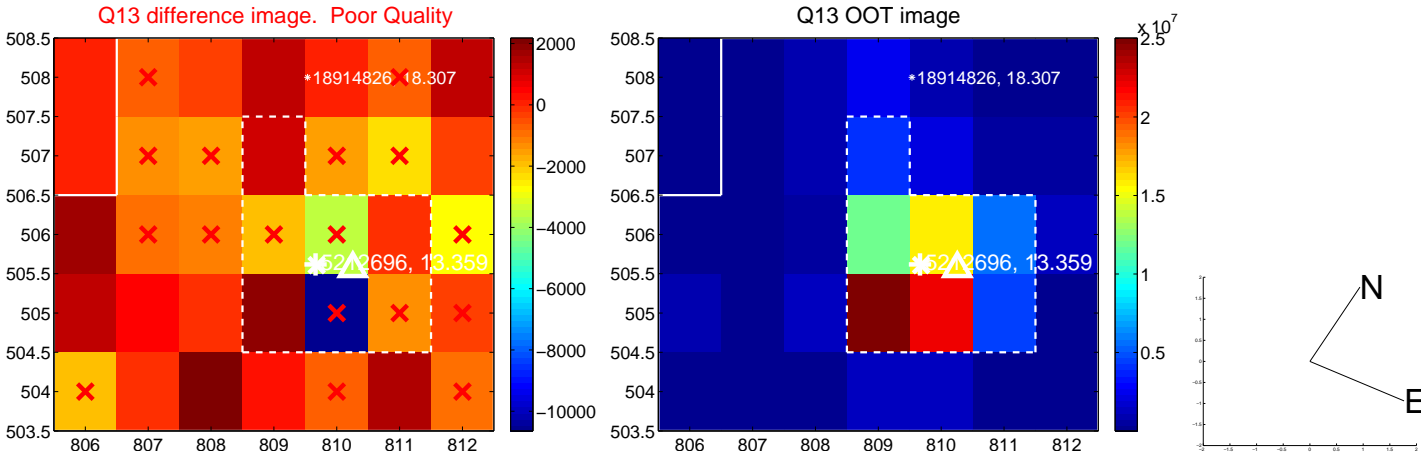
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



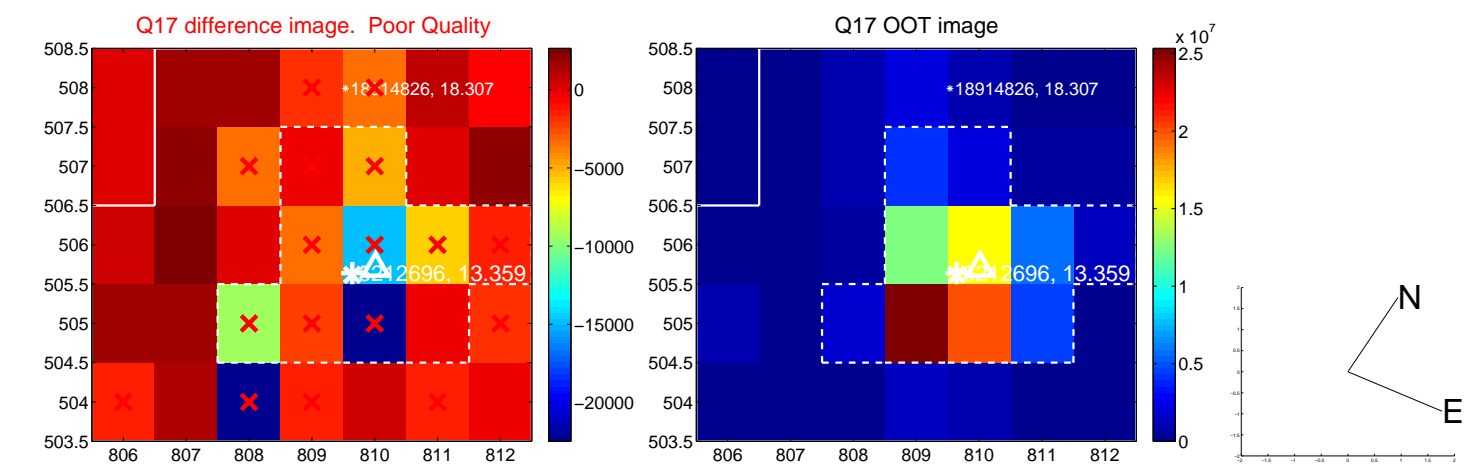
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



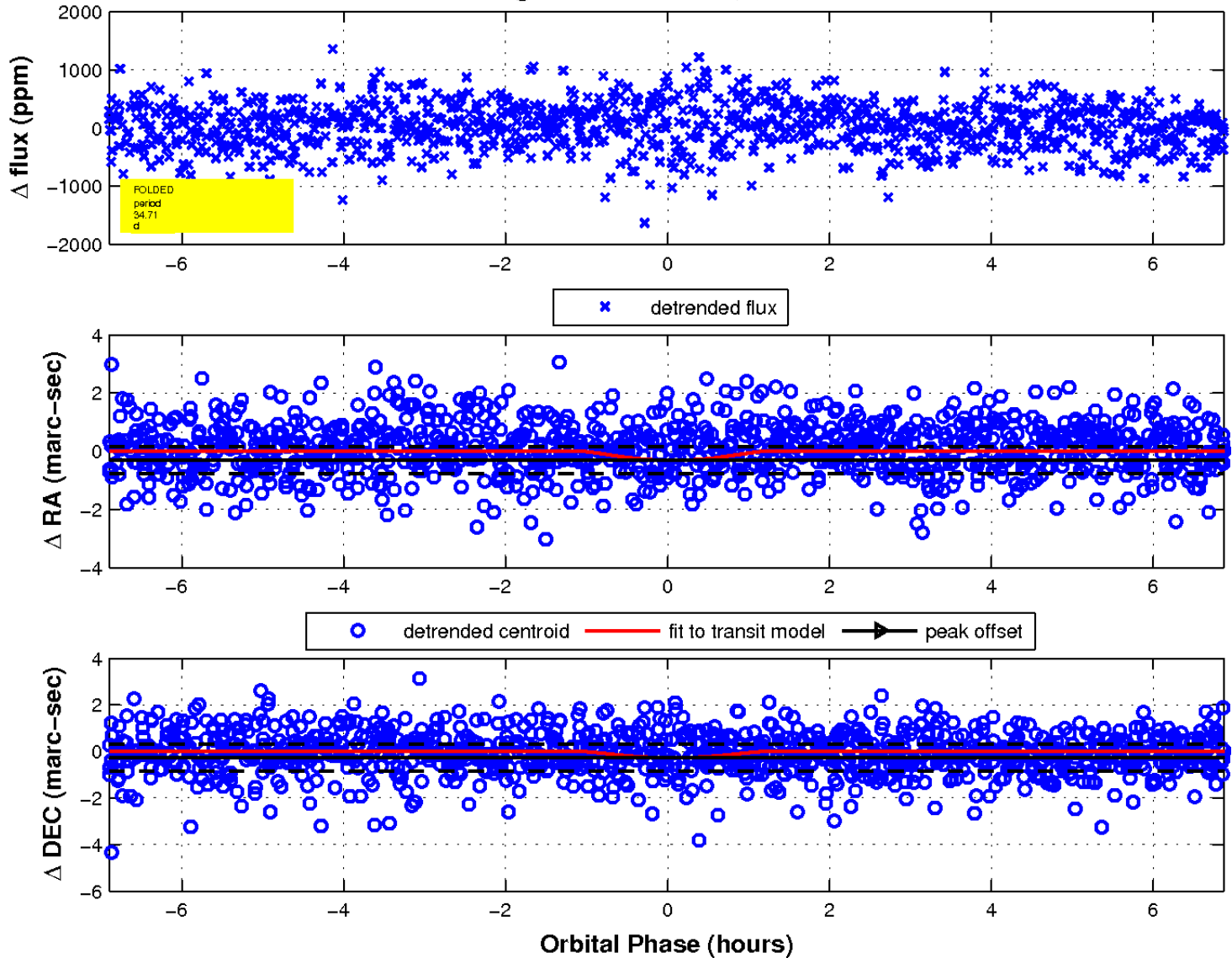
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 5 of 5



UKIRT Image

Declination

