

KIC 006426158

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})
006426158-01	OBS	No	2.432733	132.264890	4.4	1.575	12.7	5.1	2.09	10155	0.51	18370.19
006426158-02	OBS	No	1.621833	131.733001	9.2	2.524	17.8	14.5	2.09	10155	0.73	31542.64
006426158-03	OBS	No	0.608342	132.002446	2.7	2.340	15.5	5.7	2.09	10155	0.37	116603.00
006426158-04	OBS	No	1.621822	132.255448	10.5	2.711	11.3	12.1	2.09	10155	0.75	31542.93
006426158-05	OBS	No	0.811832	132.267124	0.2	0.642	9.7	0.2	2.09	10155	0.10	79362.97

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006426158-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006426158-02	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
006426158-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006426158-04	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_SATURATED
006426158-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED

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

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

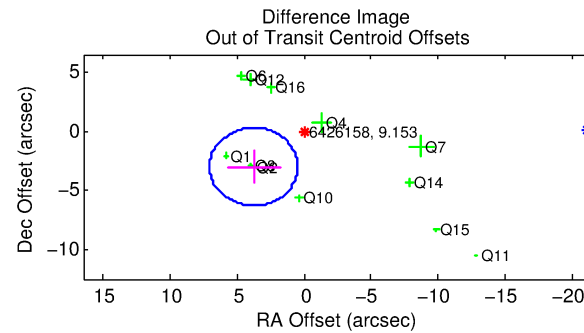
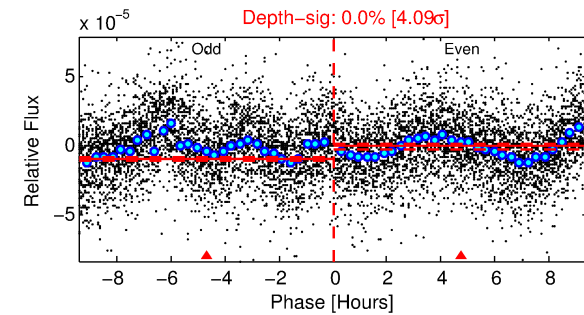
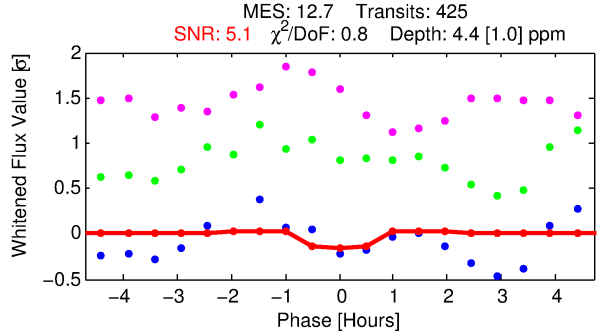
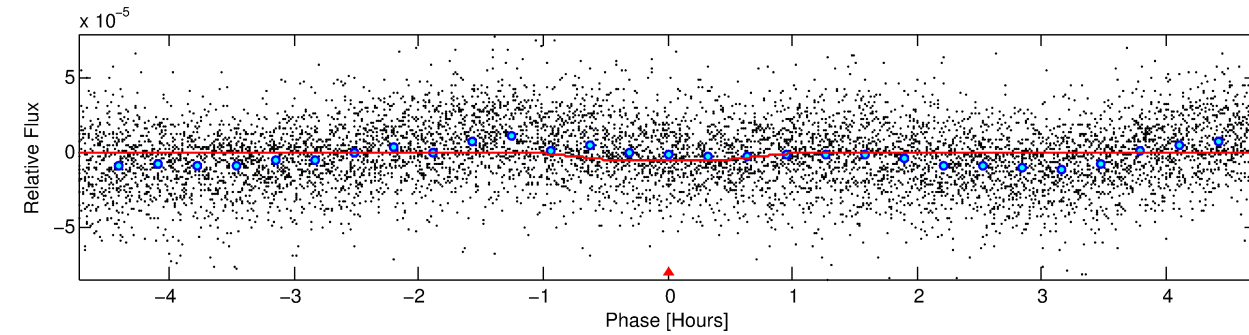
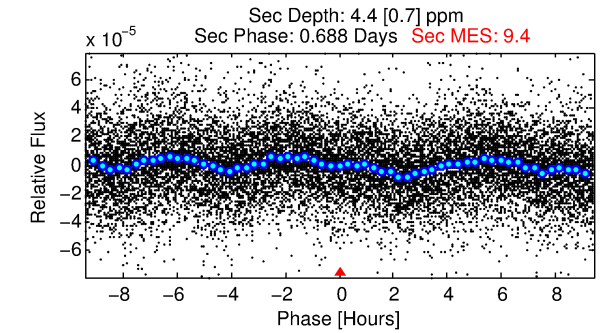
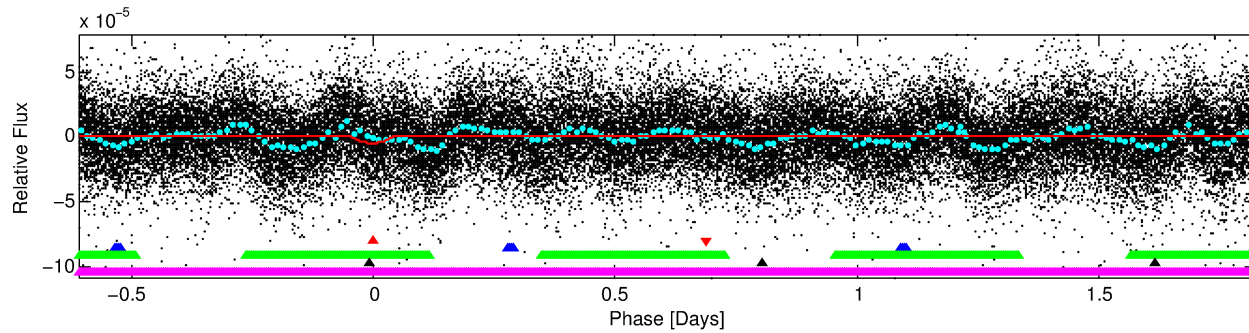
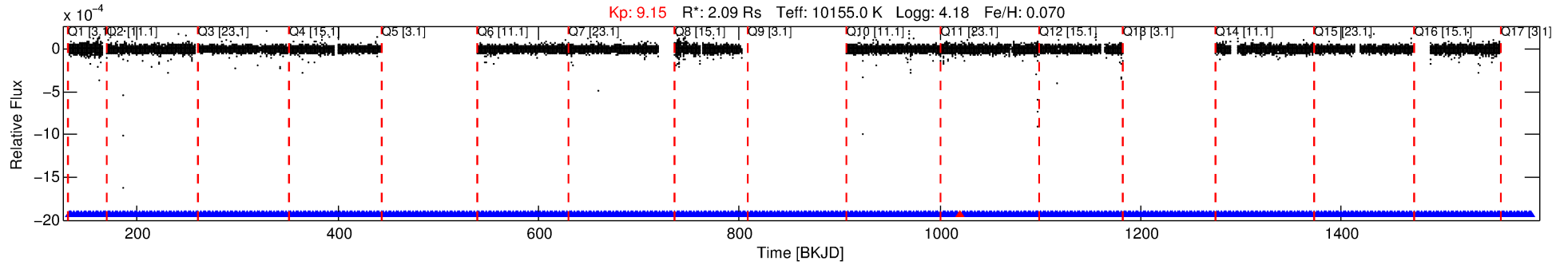
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006426158-01

No Significant Match Found

DV One-Page Summary

KIC: 6426158 Candidate: 1 of 5 Period: 2.433 d



DV Fit Results:

Period = 2.43273 [0.00002] d
Epoch = 132.2649 [0.0040] BKJD
Rp/R* = 0.0022 [0.0003]
b/R* = 4.83 [3.16]
b = 0.92 [0.12]
Seff = 18370.19 [10309.23]
Teq = 2969 [416] K
Rp = 0.51 [0.26] Re
a = 0.0476 [0.0183] AU
Ag = 20.88 [13.09] [1.52σ]
Teffp = 9811 [903] K [6.88σ]

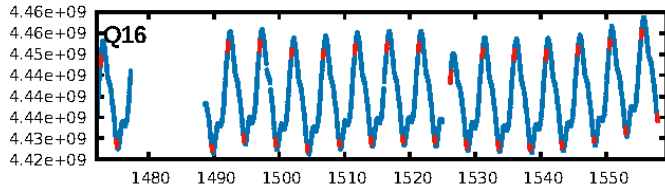
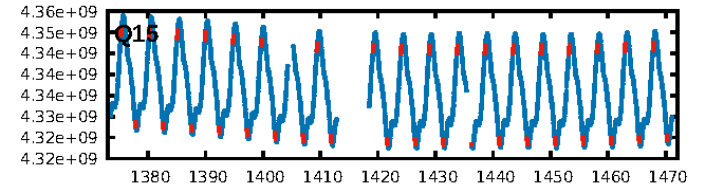
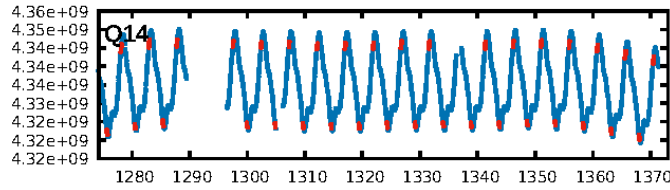
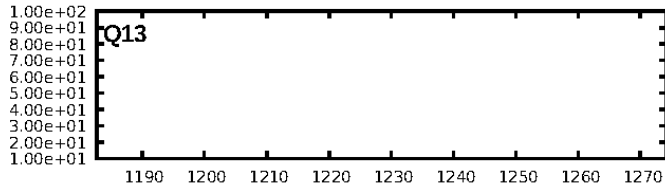
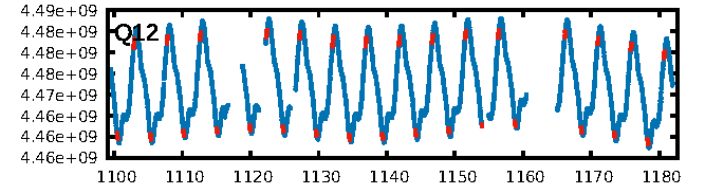
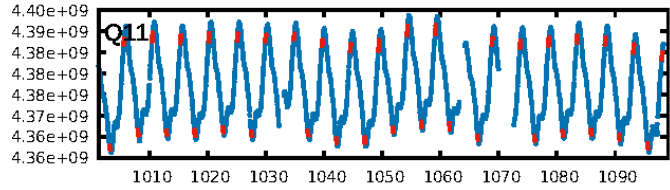
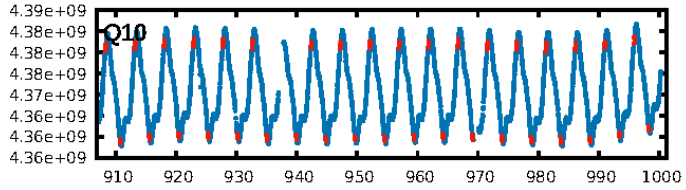
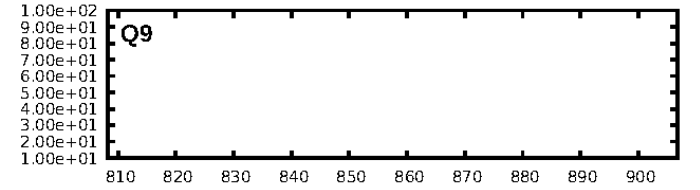
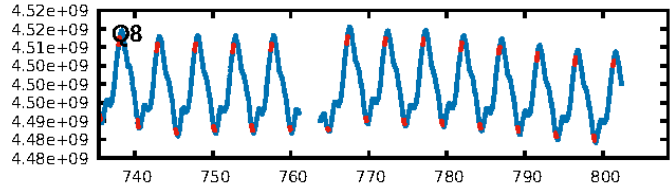
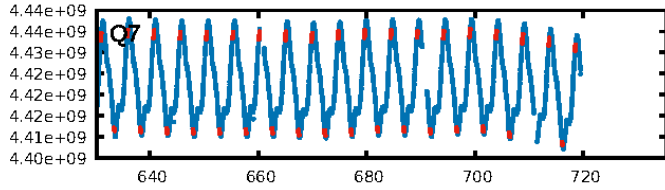
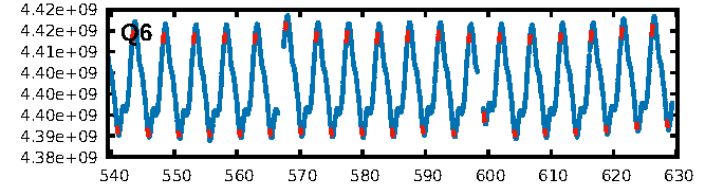
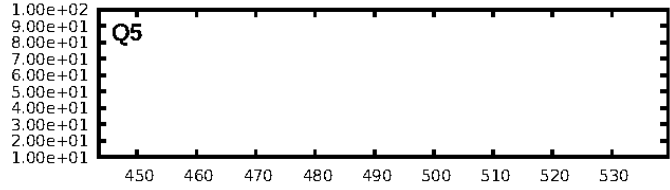
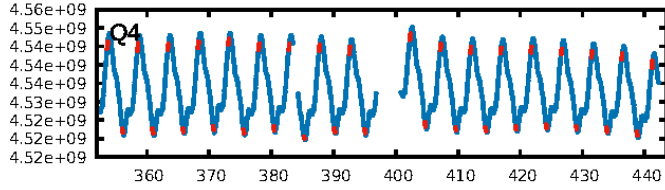
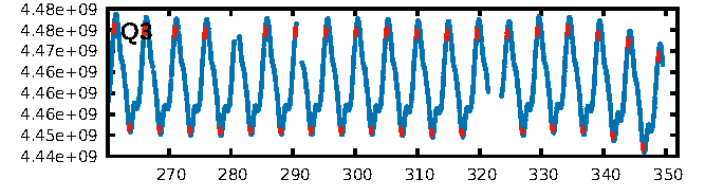
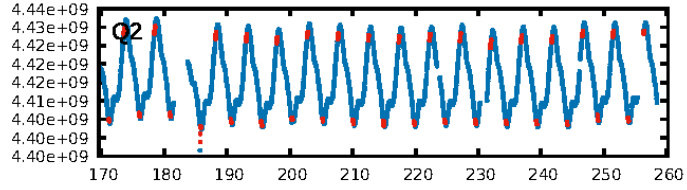
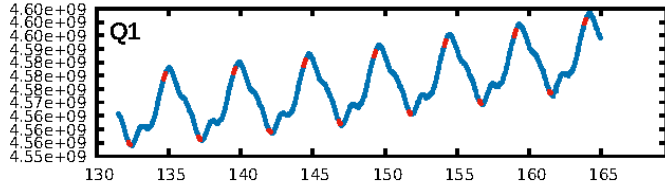
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [6.54σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [410/411]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 4.833 arcsec [4.41σ]
KicOffset-rm: 3.585 arcsec [3.59σ]
OotOffset-st: 4/3/4/1 [12]
KicOffset-st: 4/3/4/1 [12]
DiffImageQuality-fgm: 0.08 [1/12]
DiffImageOverlap-fno: 0.00 [0/13]

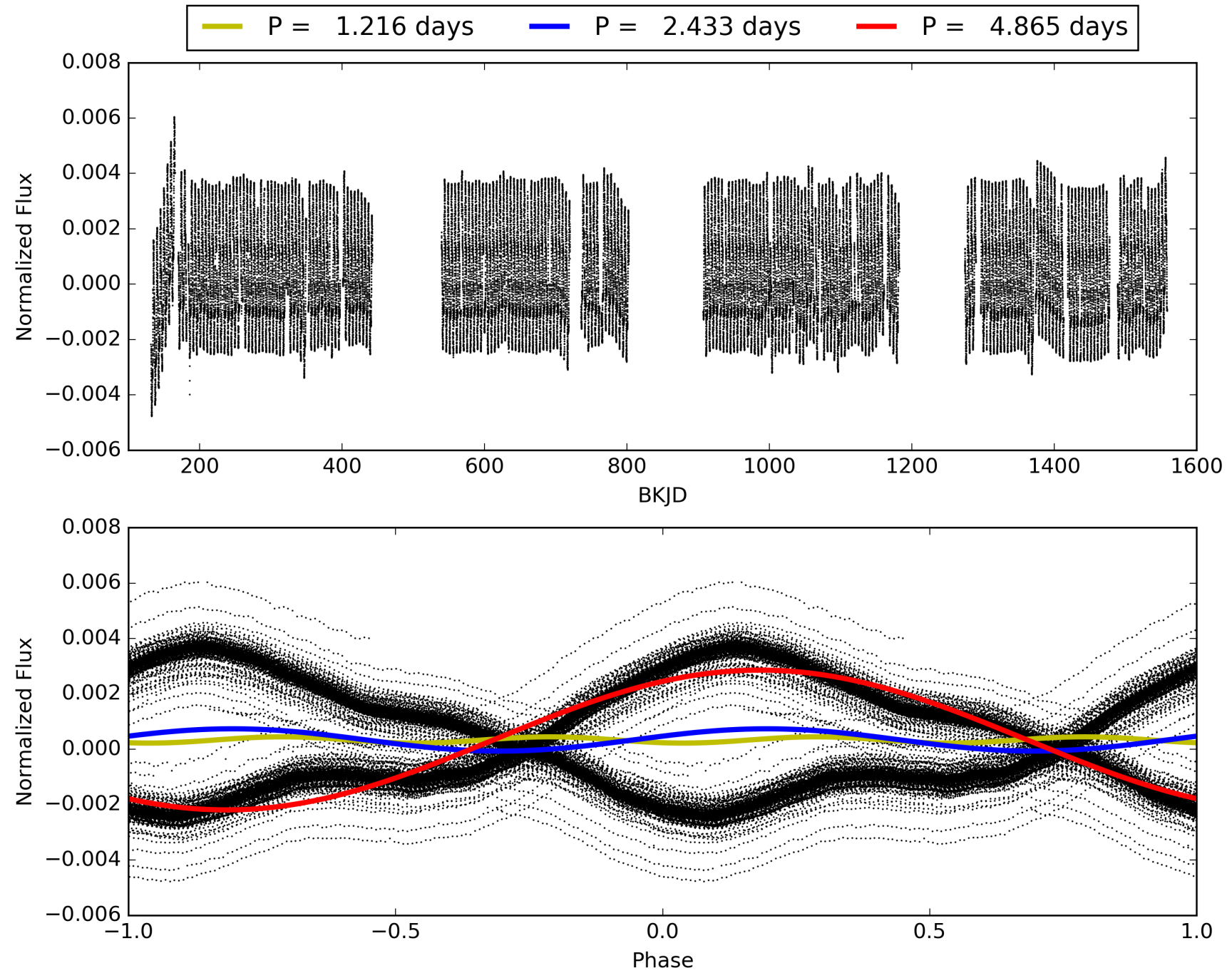
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006426158-01, PDC Light Curves

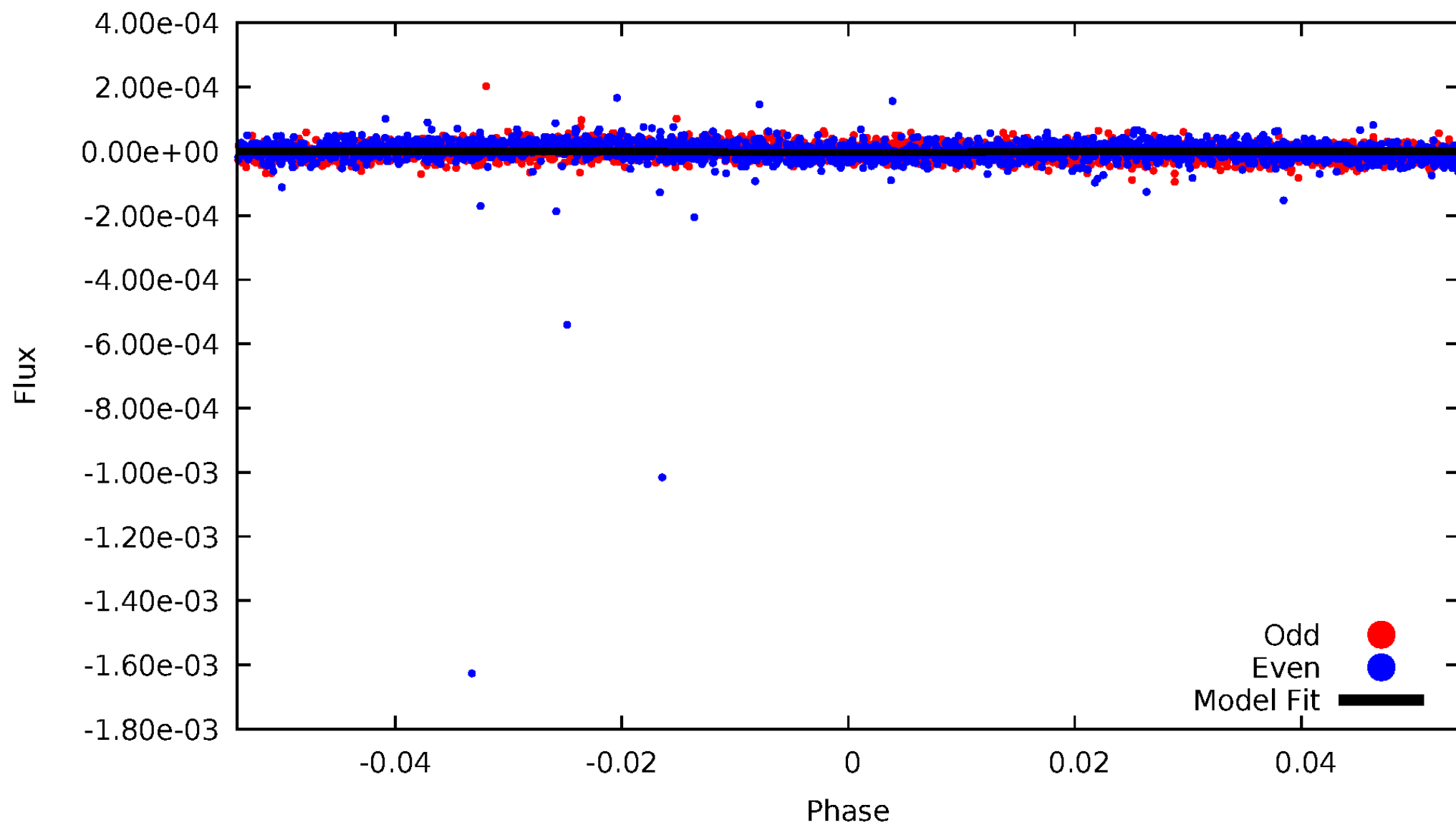


TCE 006426158-01



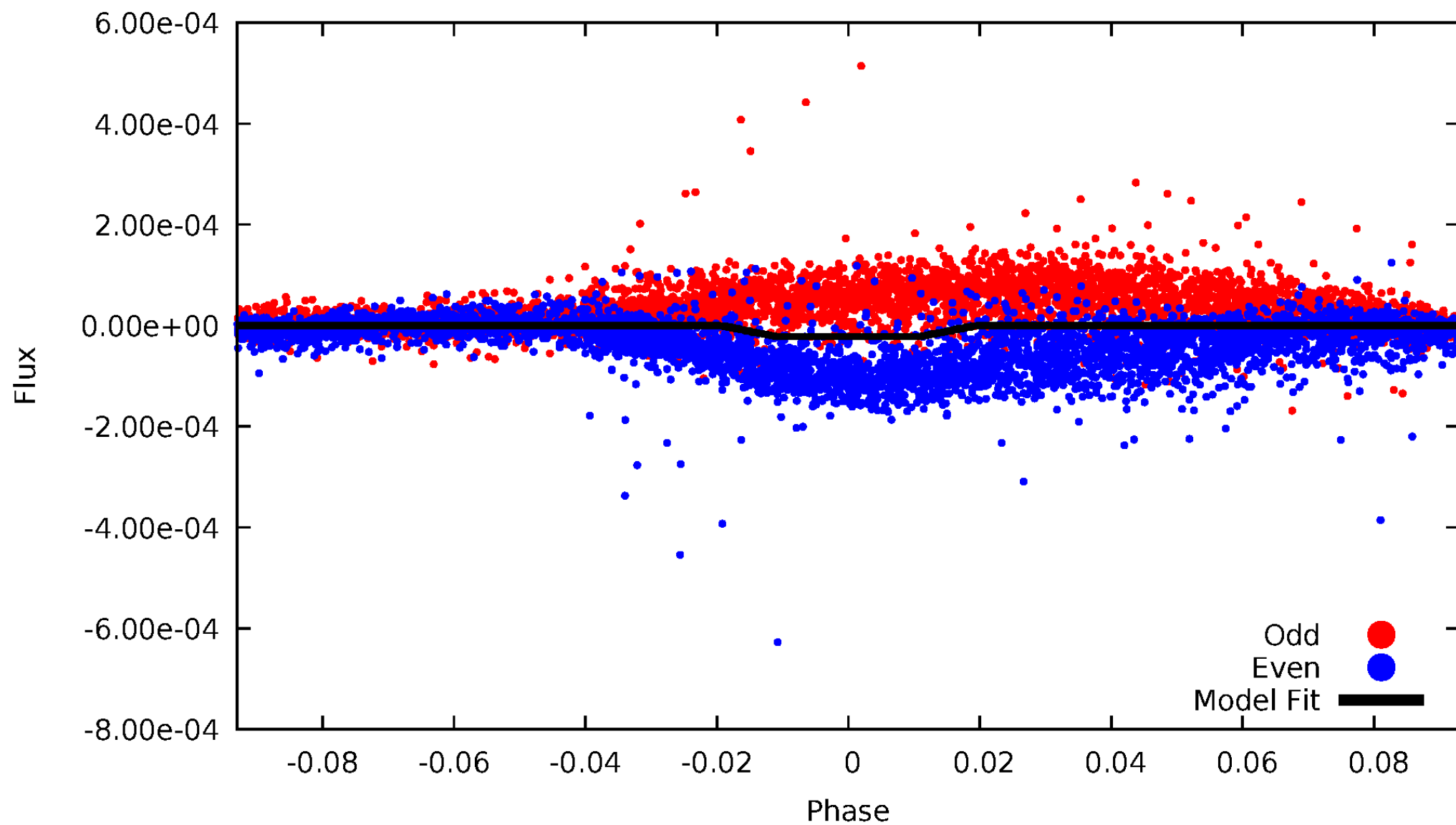
DV Odd/Even

TCE 006426158-01



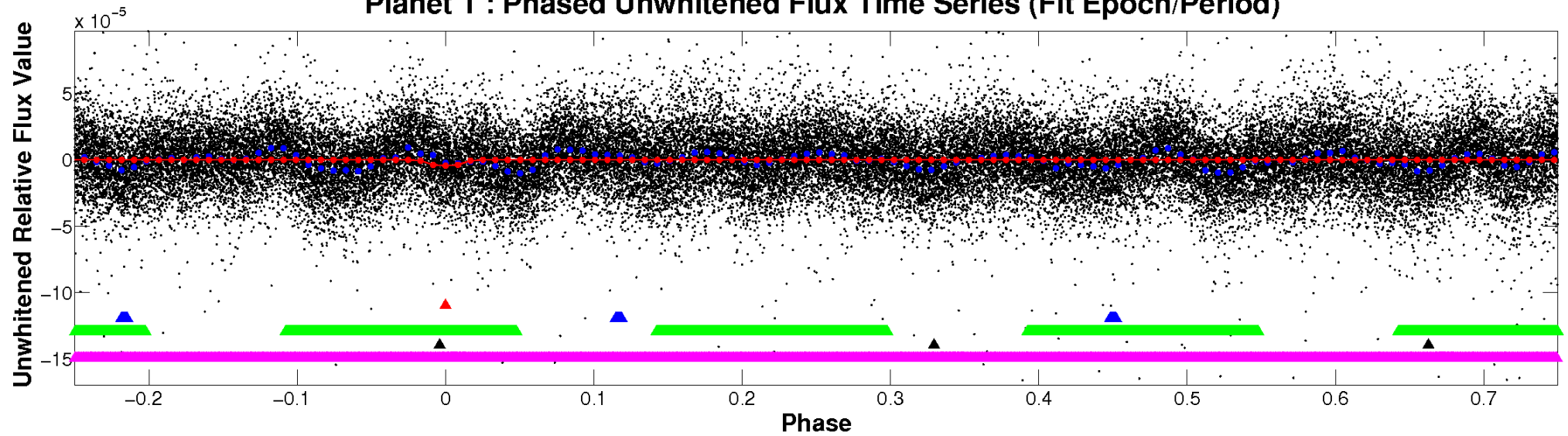
ALT Odd/Even

TCE 006426158-01

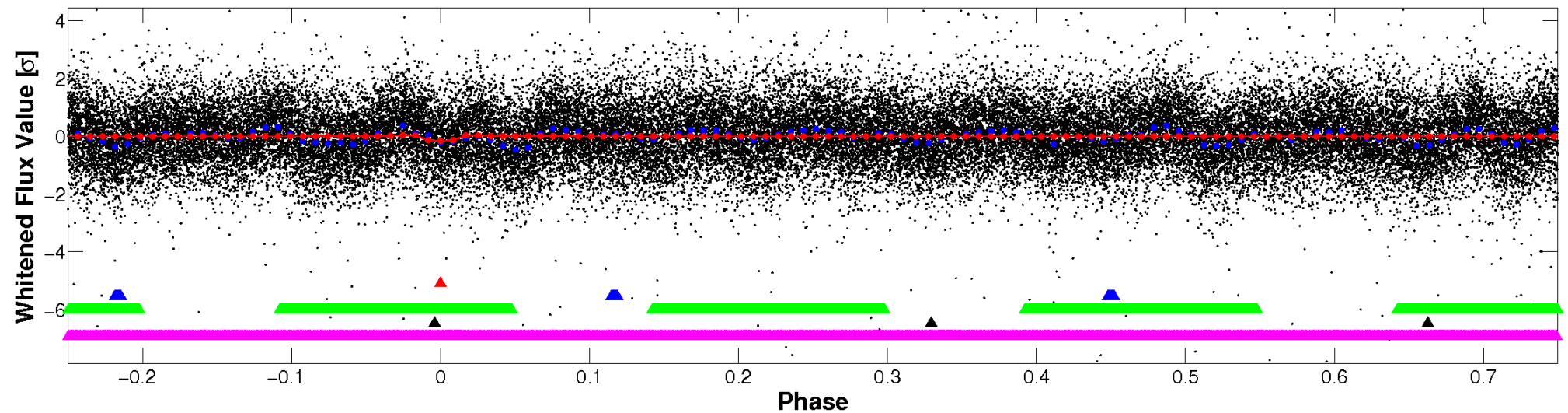


Non-Whitened Vs. Whitened Light Curve

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

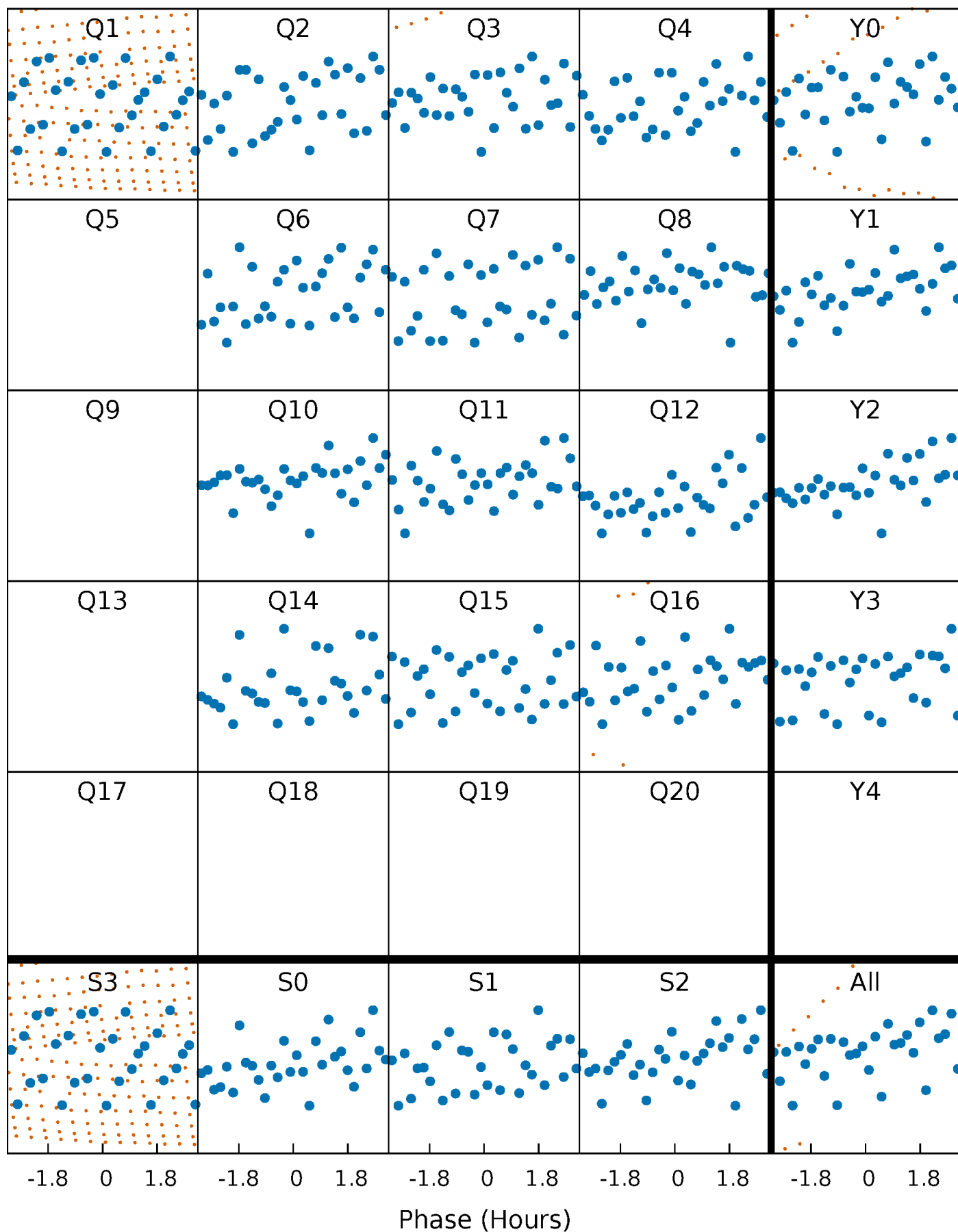


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



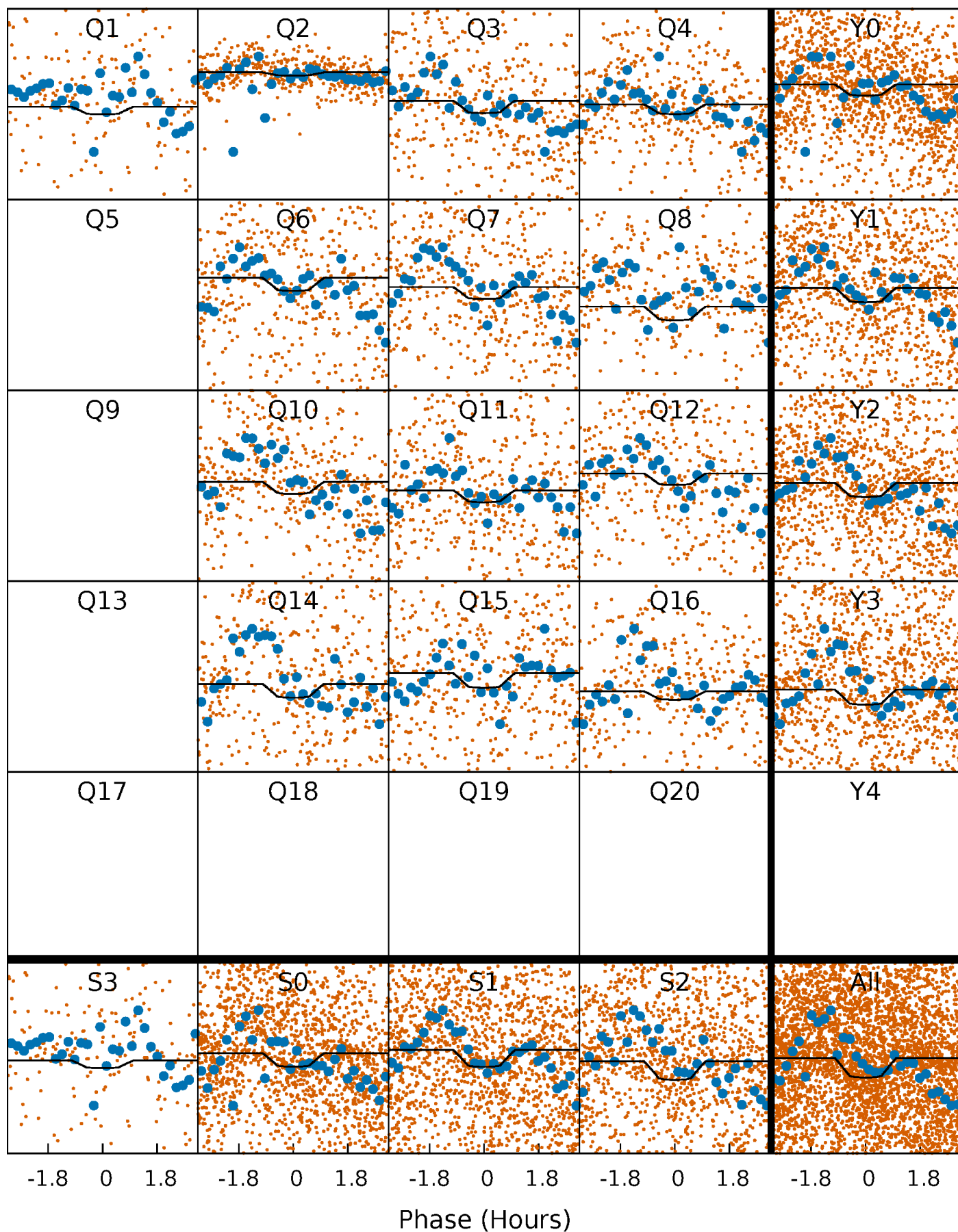
PDC Quarter-Phased Transit Curves

TCE 006426158-01 P= 2.432733 Days $T_0=132.264890$ (BKJD)



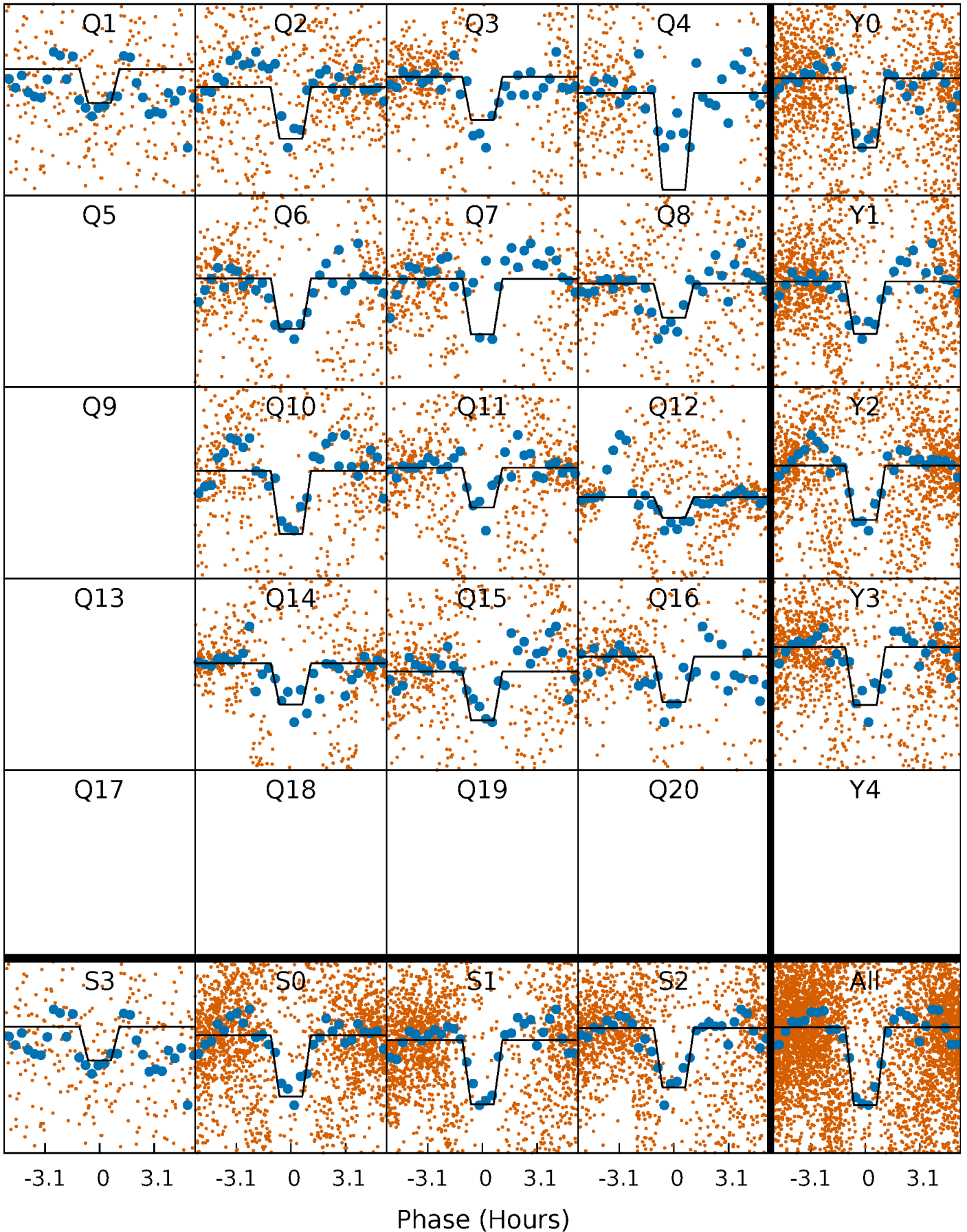
DV Quarter-Phased Transit Curves

TCE 006426158-01 P= 2.432733 Days $T_0=132.264890$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

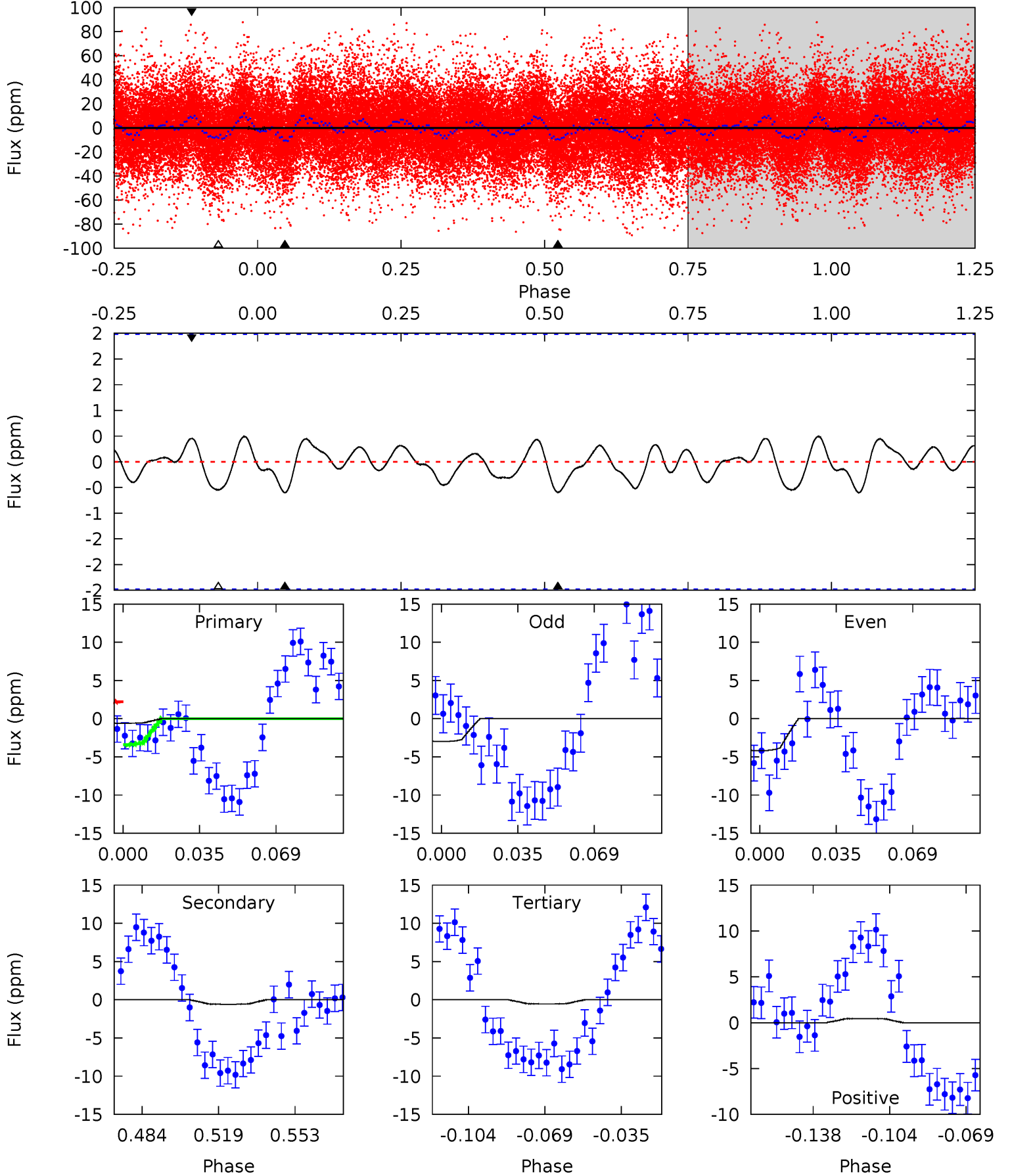
TCE 006426158-01 P= 2.432785 Days $T_0=132.251208$ (BKJD)



DV Model-Shift Uniqueness Test

006426158-01, P = 2.432733 Days, E = 129.832157 Days

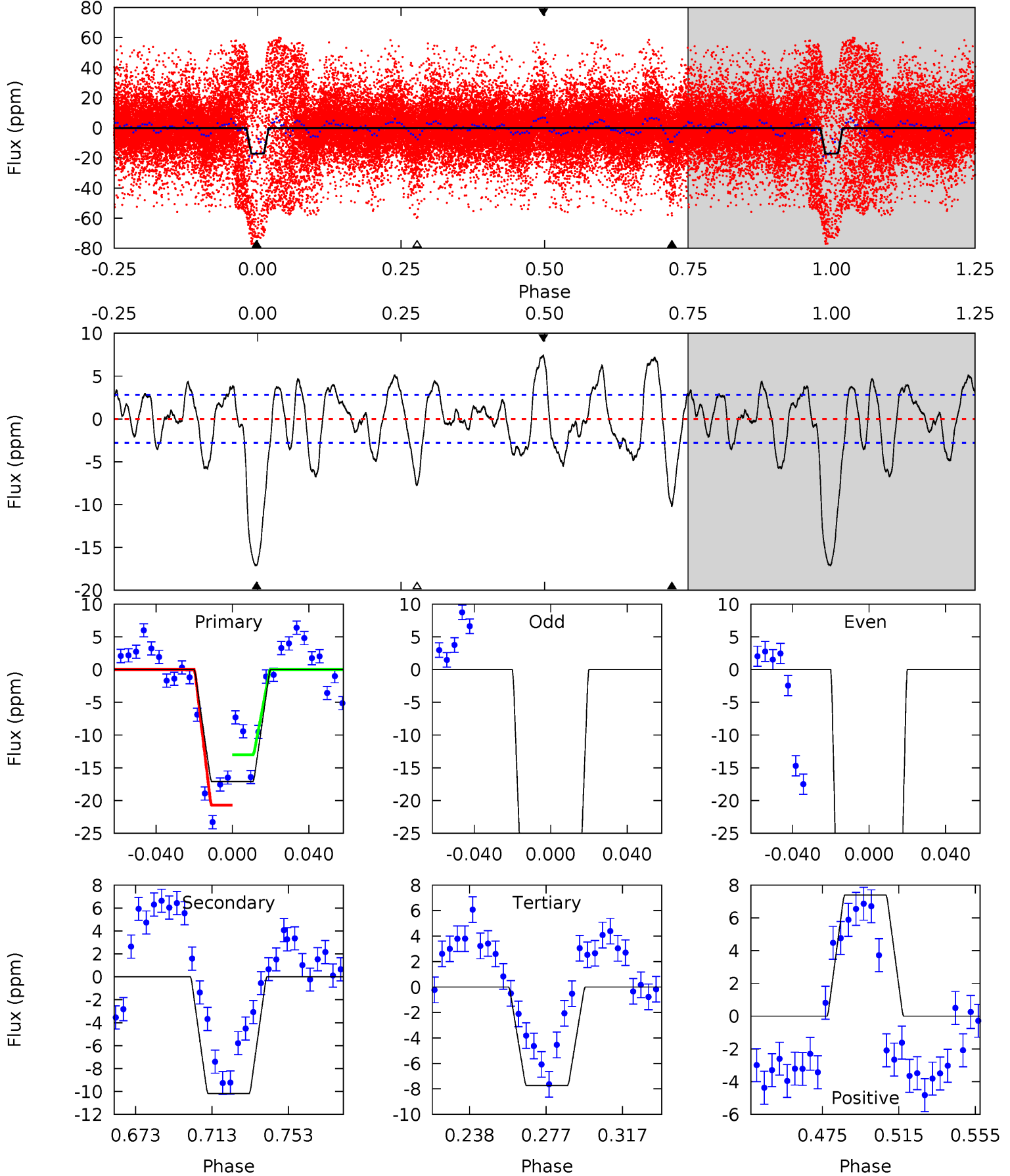
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.16	1.15	1.06	0.87	4.78	2.11	0.48	0.10	0.28	0.09	0.27	1.15	1.30	0.45	1.16



Alt Model-Shift Uniqueness Test

006426158-01, P = 2.432785 Days, E = 129.818423 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
29.0	17.2	13.1	12.5	4.76	2.06	5.19	15.9	16.5	4.12	4.70	57.5	1.17	0.30	0



Stellar Parameters For KIC 006426158

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	10155^{+286}_{-429}	$4.183^{+0.151}_{-0.280}$	$0.070^{+0.150}_{-0.550}$	$2.089^{+0.999}_{-0.538}$	$2.426^{+0.481}_{-0.481}$	$0.375^{+0.356}_{-0.238}$
	+3%/-4%	+4%/-7%	+214%/-786%	+48%/-26%	+20%/-20%	+95%/-64%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 006426158-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-1 ± 1	$0.53^{+0.16}_{-0.11}$	4218^{+440}_{-335}	5280^{+1130}_{-2116}	$2.393^{+3.163}_{-1.967}$
Alt.	-10 ± 1	$1.08^{+0.28}_{-0.17}$	4185^{+458}_{-307}	7777^{+438}_{-446}	10^{+4}_{-3}

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 $A_{obs} \gg 1.0$

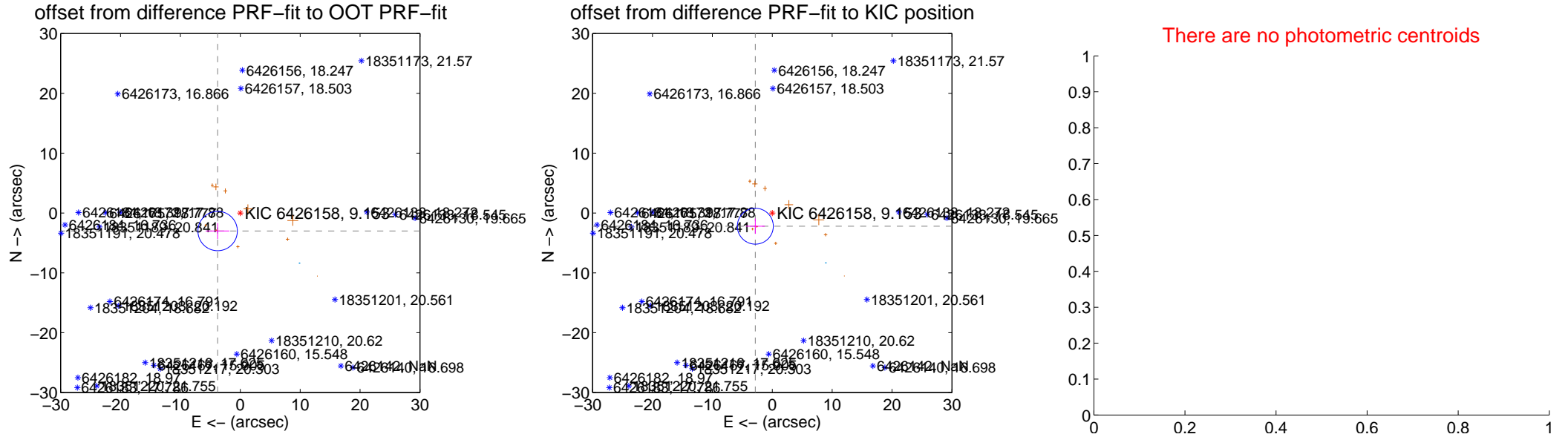
DV Centroid Data

Supplemental centroid analysis for 006426158-01. **Kepler magnitude: 9.15.** Transit SNR 5.14

There are 1 quarters with good PRF difference image offsets

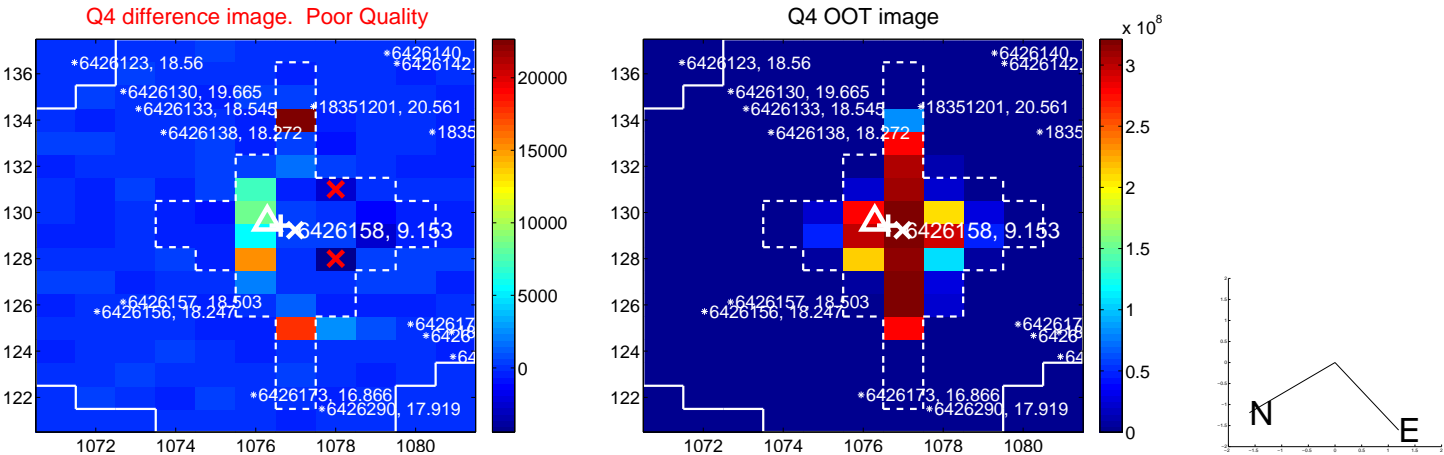
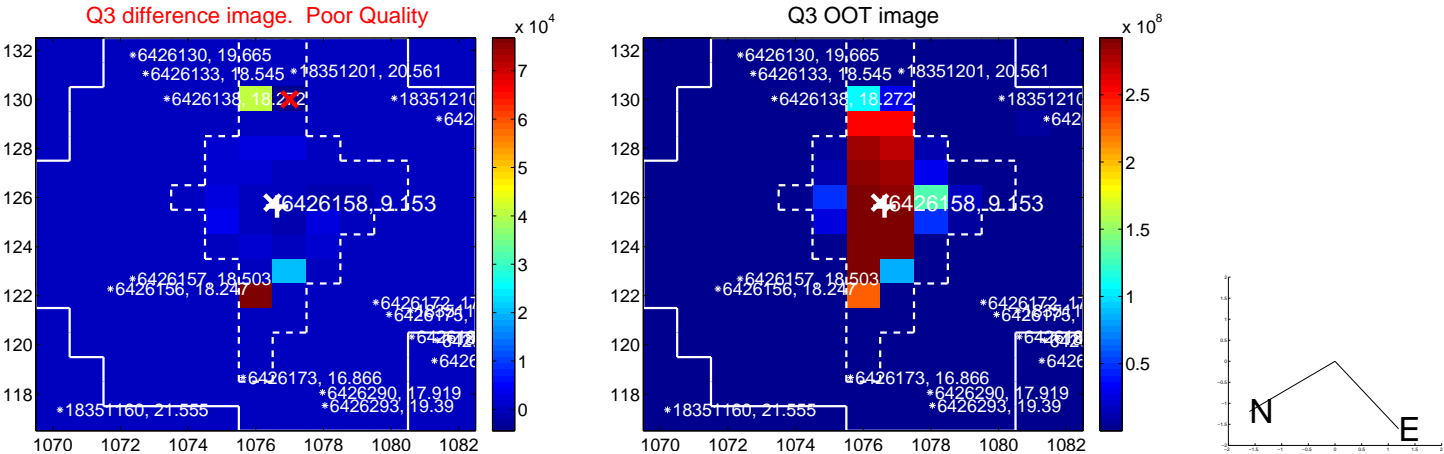
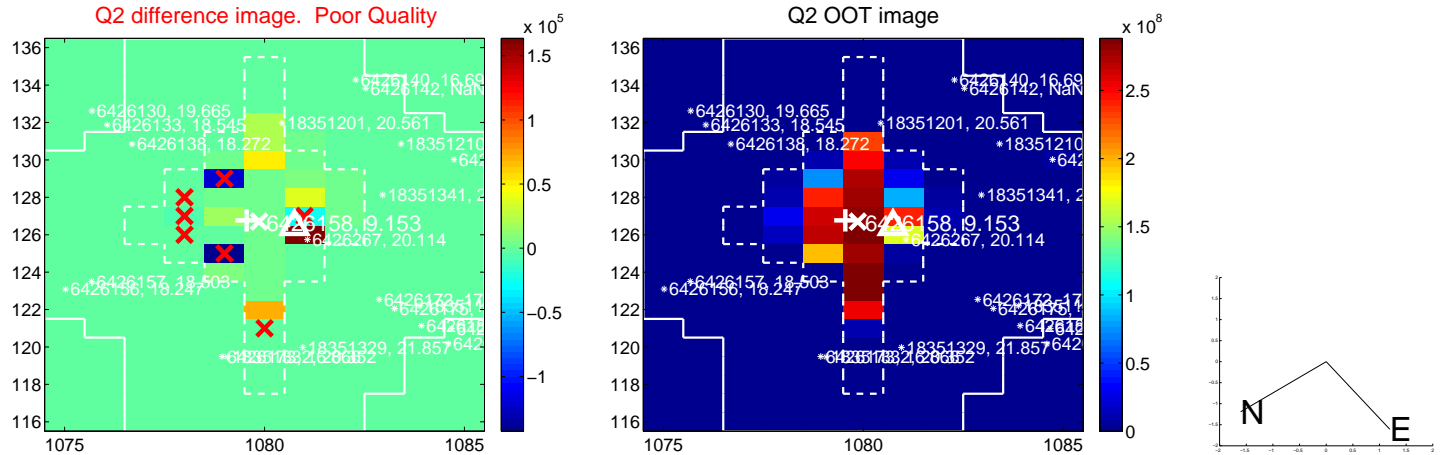
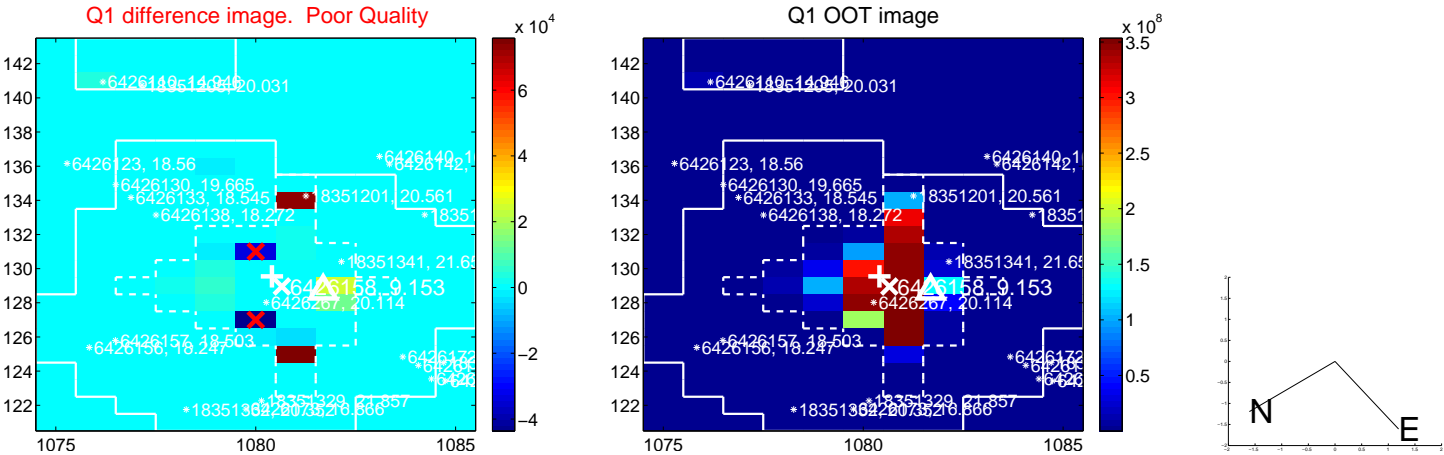
The direct PRF centroid is offset from the target star catalog position by about 1.34 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.833 \pm 1.097	4.41	3.781 ± 1.961	-3.009 ± 1.336
PRF-fit source offset from KIC position	3.585 \pm 1.000	3.59	2.827 ± 1.569	-2.204 ± 1.282
photometric centroid source offset	—	—	—	—

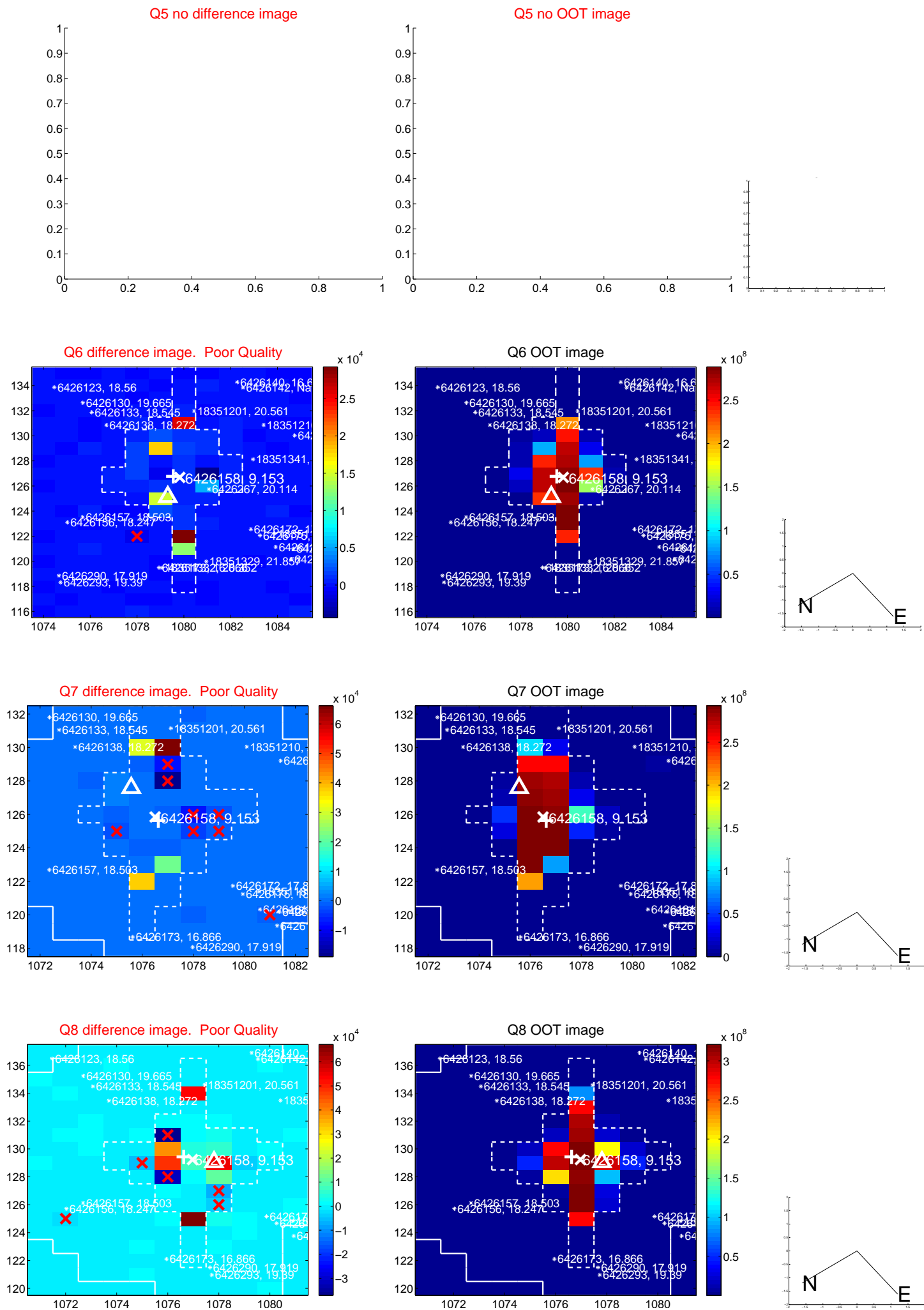


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

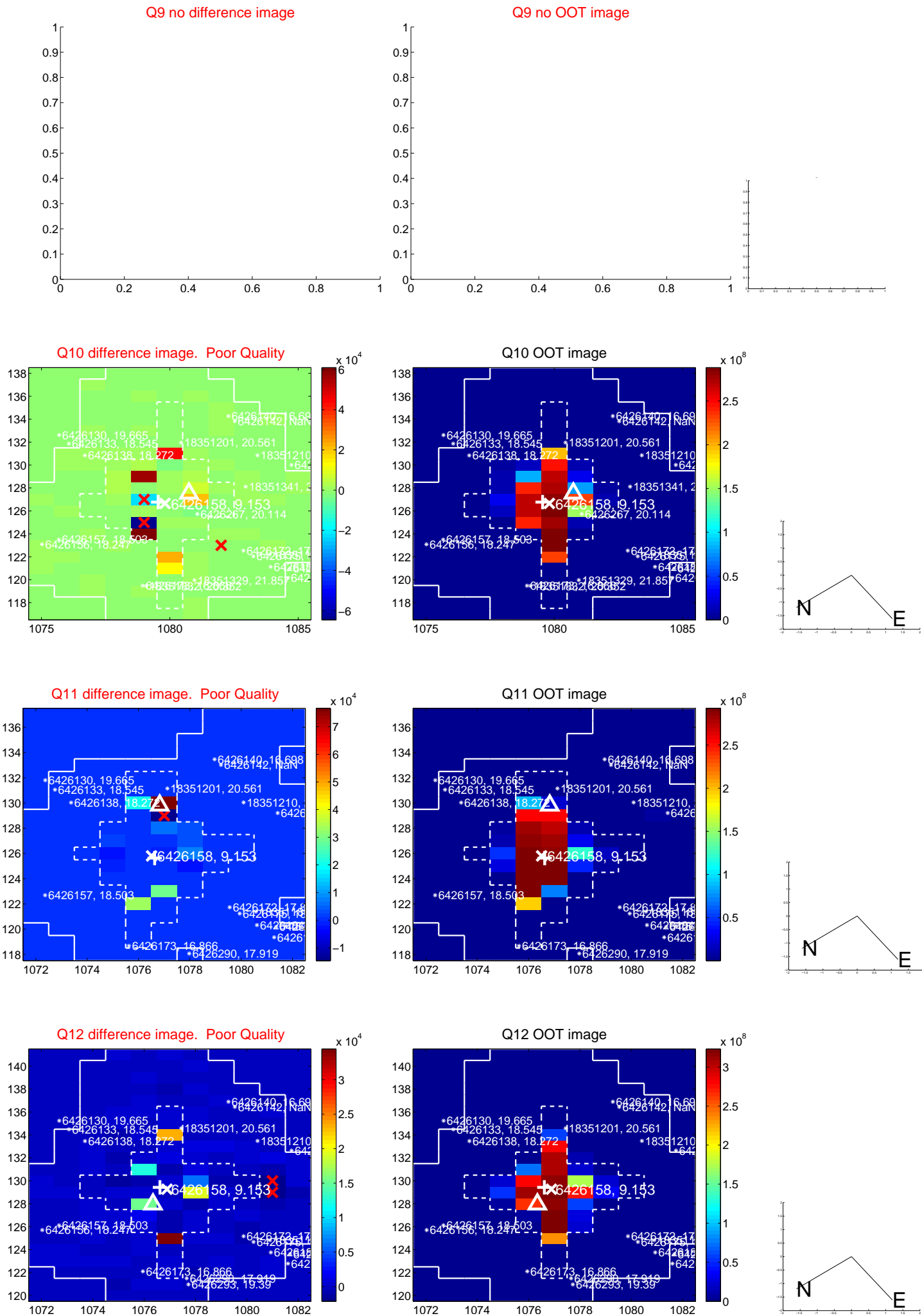
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



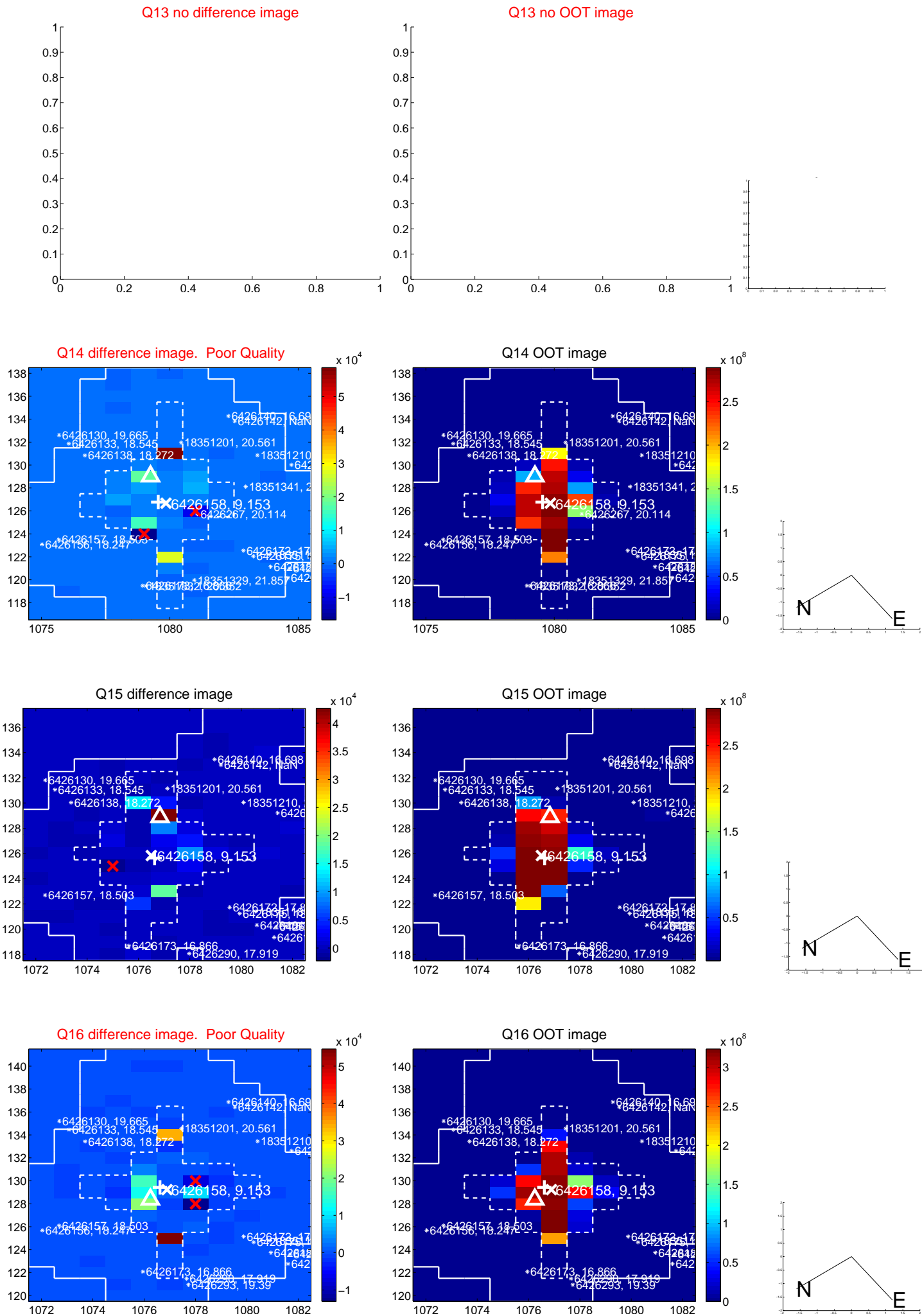
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



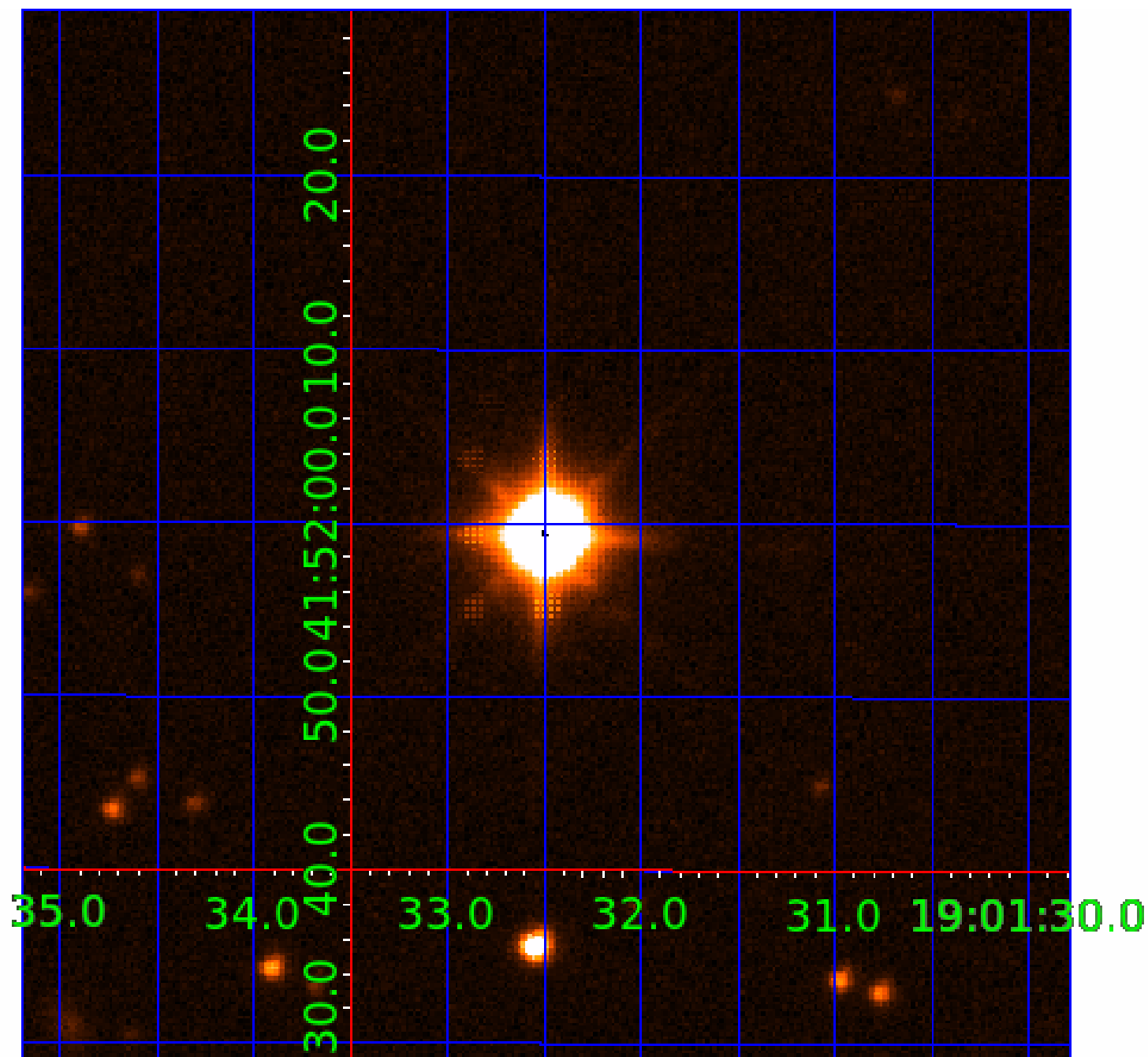
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination



KIC 006426158

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})
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006426158-04	OBS	No	1.621822	132.255448	10.5	2.711	11.3	12.1	2.09	10155	0.75	31542.93
006426158-05	OBS	No	0.811832	132.267124	0.2	0.642	9.7	0.2	2.09	10155	0.10	79362.97

Robovetter Results

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006426158-02	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
006426158-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006426158-04	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_SATURATED
006426158-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED

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

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

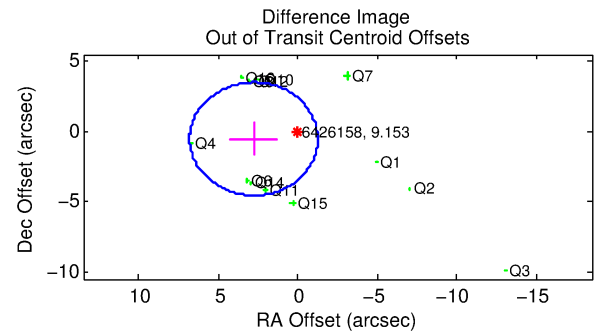
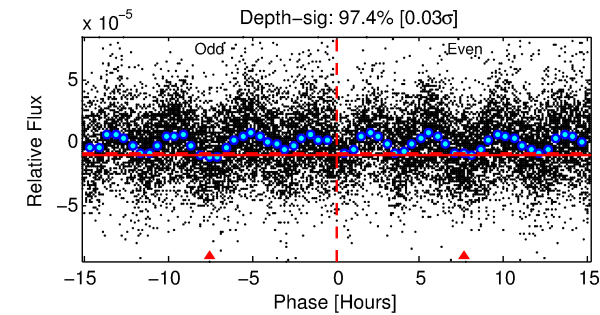
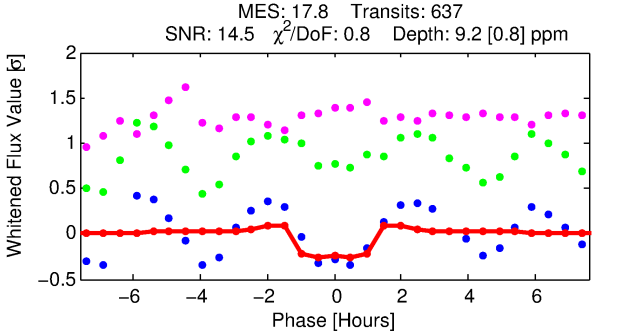
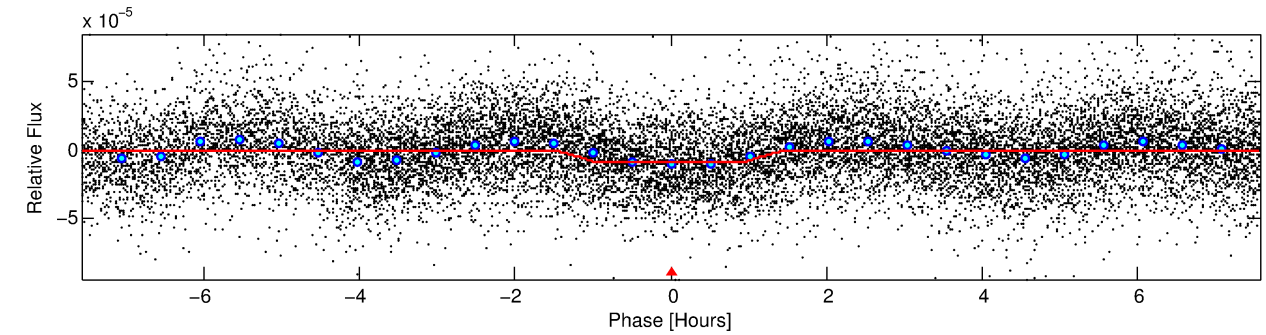
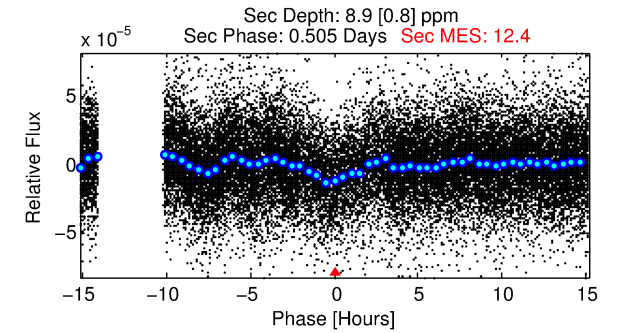
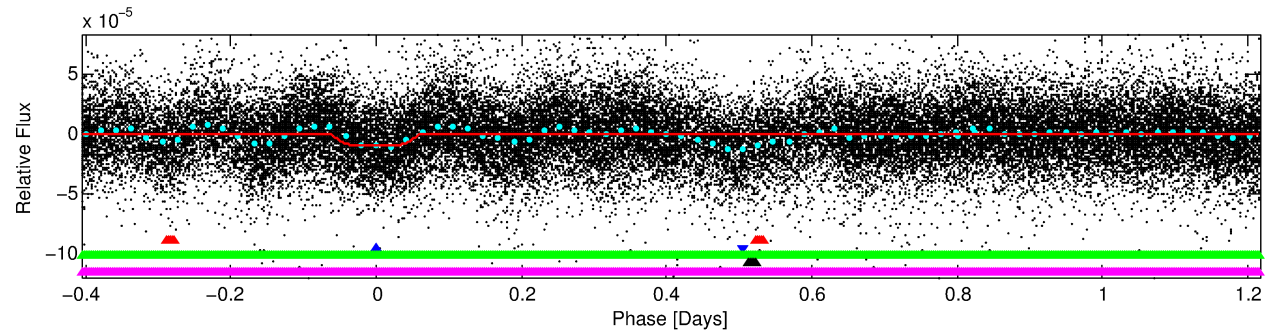
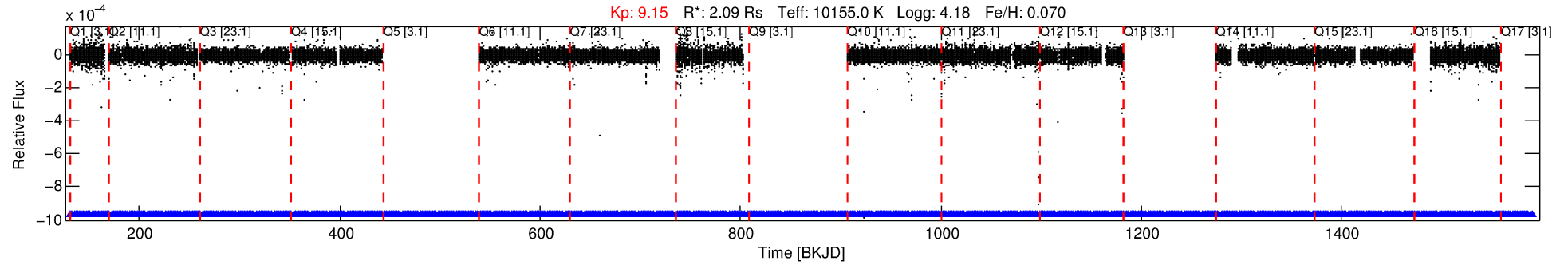
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006426158-02

No Significant Match Found

DV One-Page Summary

KIC: 6426158 Candidate: 2 of 5 Period: 1.622 d



DV Fit Results:

Period = 1.62183 [0.00001] d
Epoch = 131.7330 [0.0016] BKJD
Rp/R* = 0.0032 [0.0002]
a/R* = 2.34 [0.63]
b = 0.90 [0.07]
Seff = 31542.64 [17701.51]
Teq = 3398 [477] K
Rp = 0.73 [0.35] Re
a = 0.0363 [0.0140] AU
Ag = 12.17 [6.74] [1.66σ]
Teffp = 9814 [544] K [8.87σ]

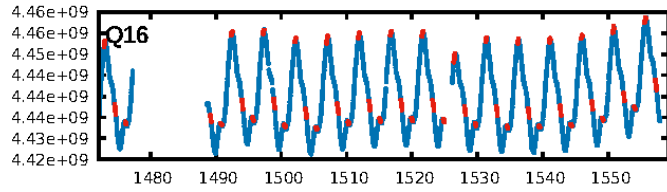
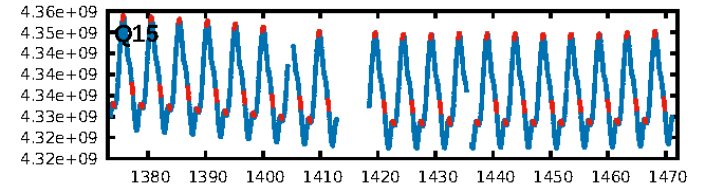
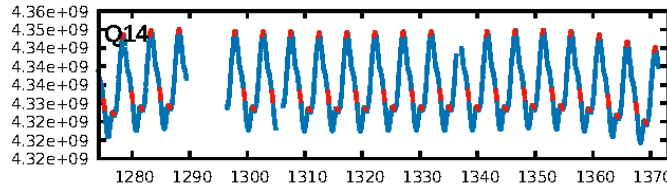
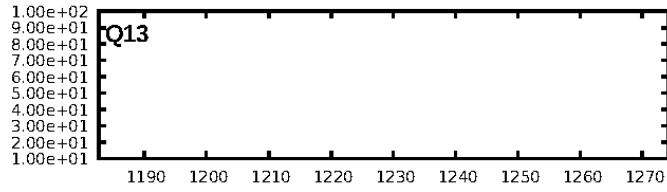
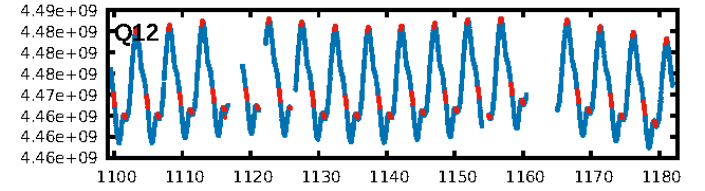
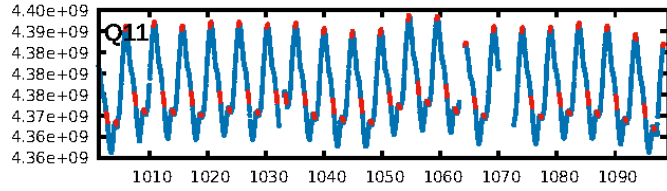
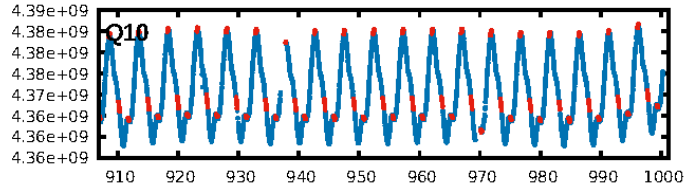
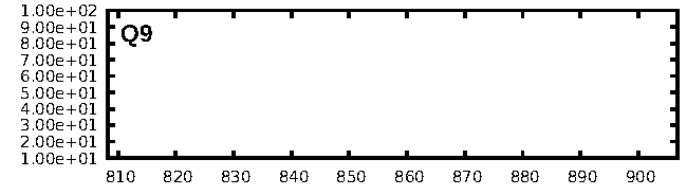
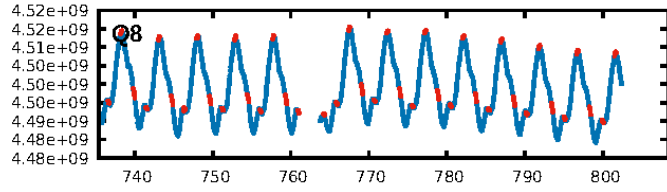
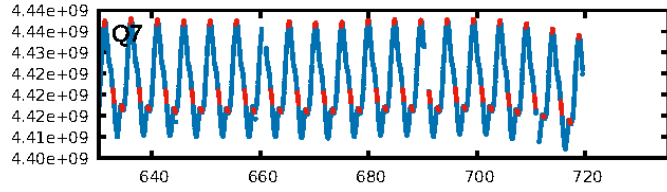
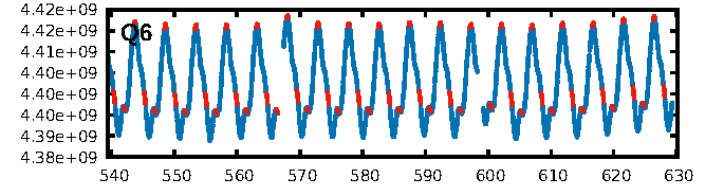
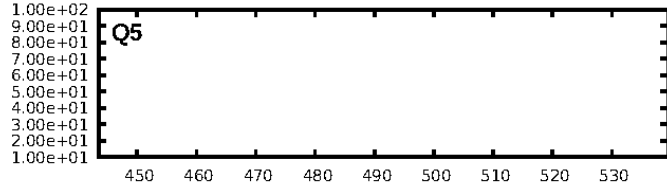
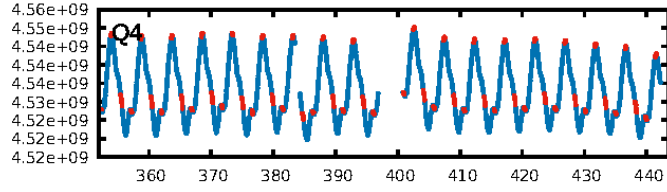
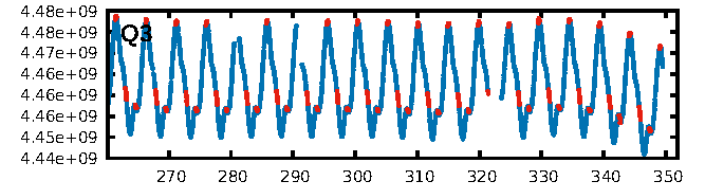
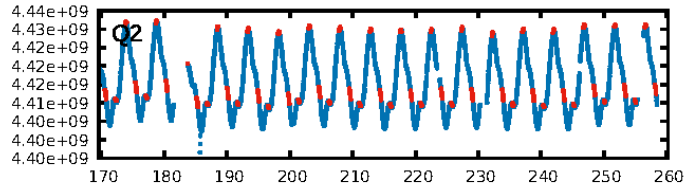
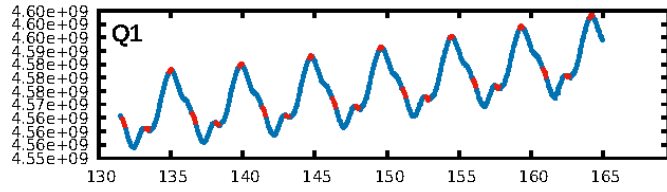
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: 100.0% [6.54σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [616/616]
GhostDiagnostic-chr: N/A
Centroid-sig: 0.0%
Centroid-so: 5.355 arcsec [3.01σ]
OotOffset-rm: 2.830 arcsec [2.11σ]
KicOffset-rm: 1.723 arcsec [1.31σ]
OotOffset-st: 4/4/4/1 [13]
KicOffset-st: 4/4/4/1 [13]
DiffImageQuality-fgm: 0.00 [0/13]
DiffImageOverlap-fno: 0.00 [0/13]

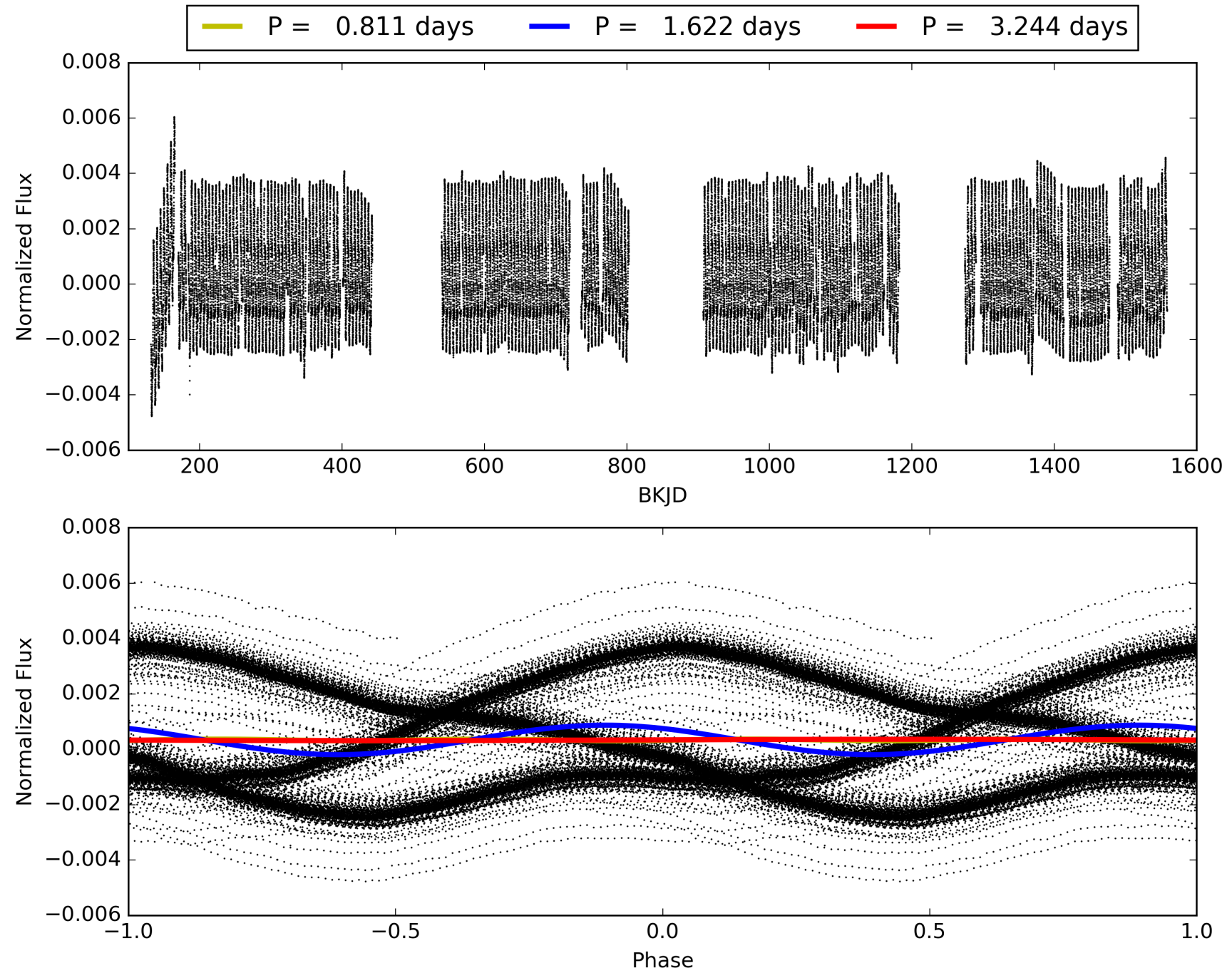
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 07:25:27 Z

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

TCE 006426158-02, PDC Light Curves

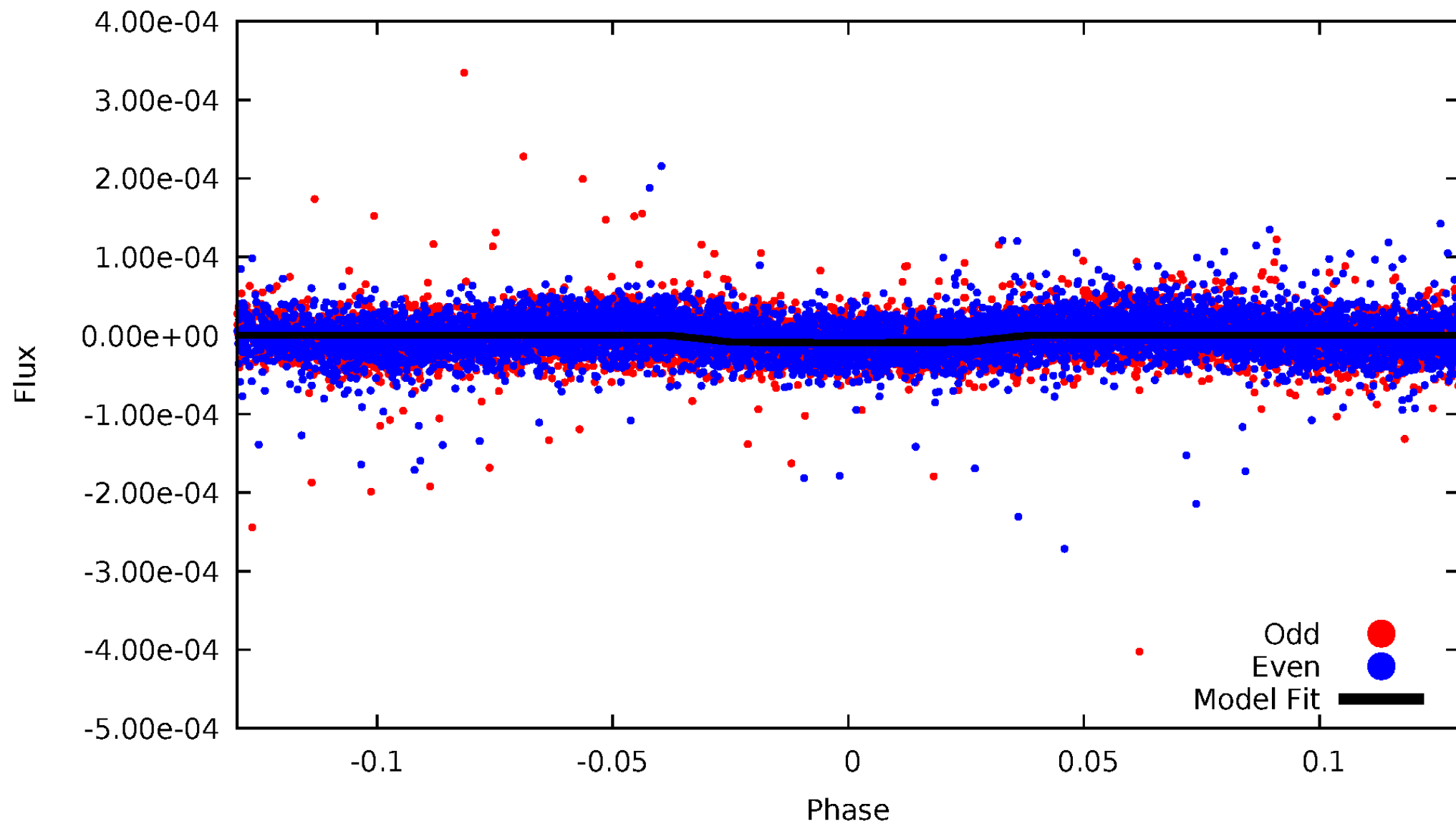


TCE 006426158-02



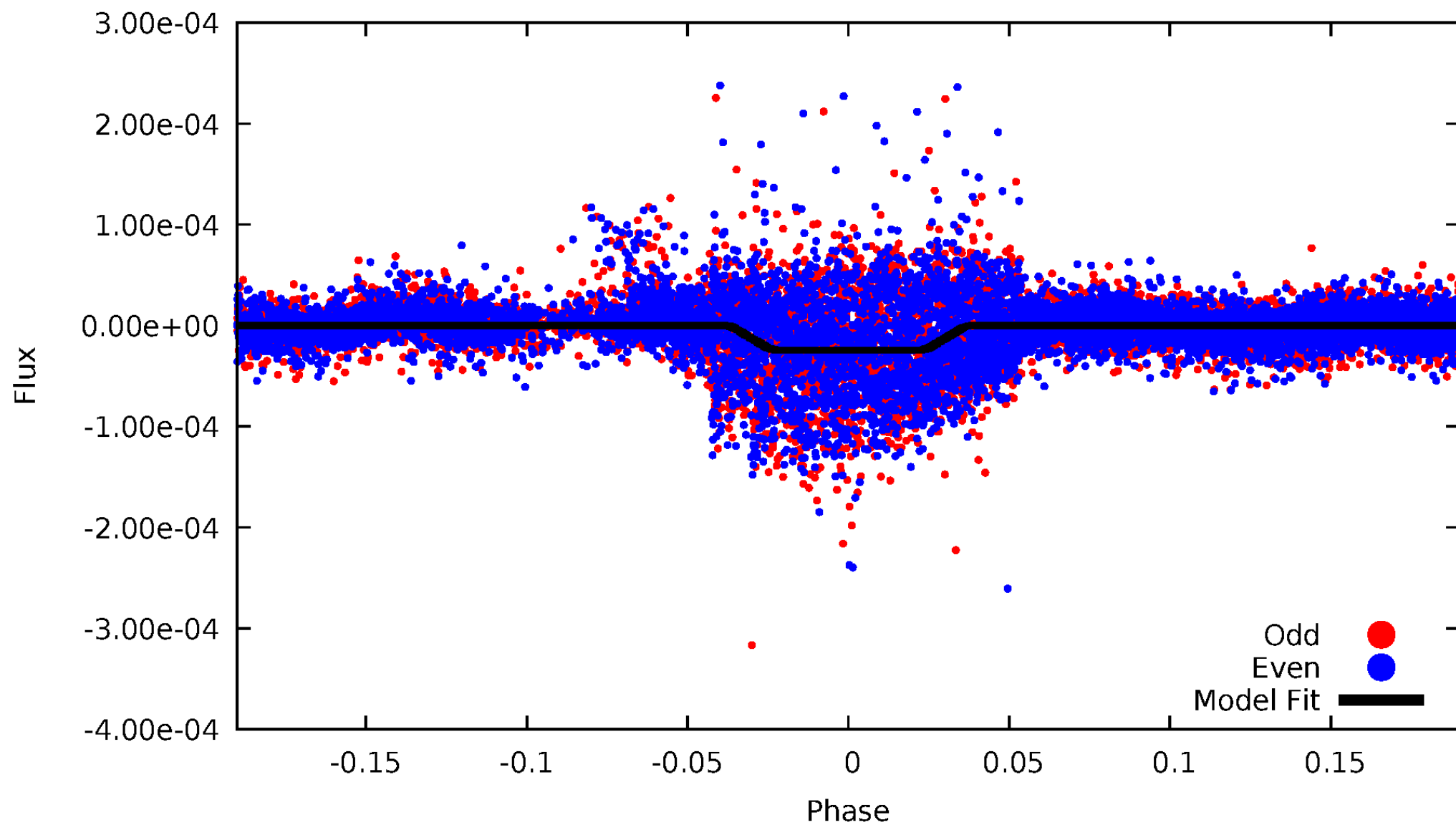
DV Odd/Even

TCE 006426158-02



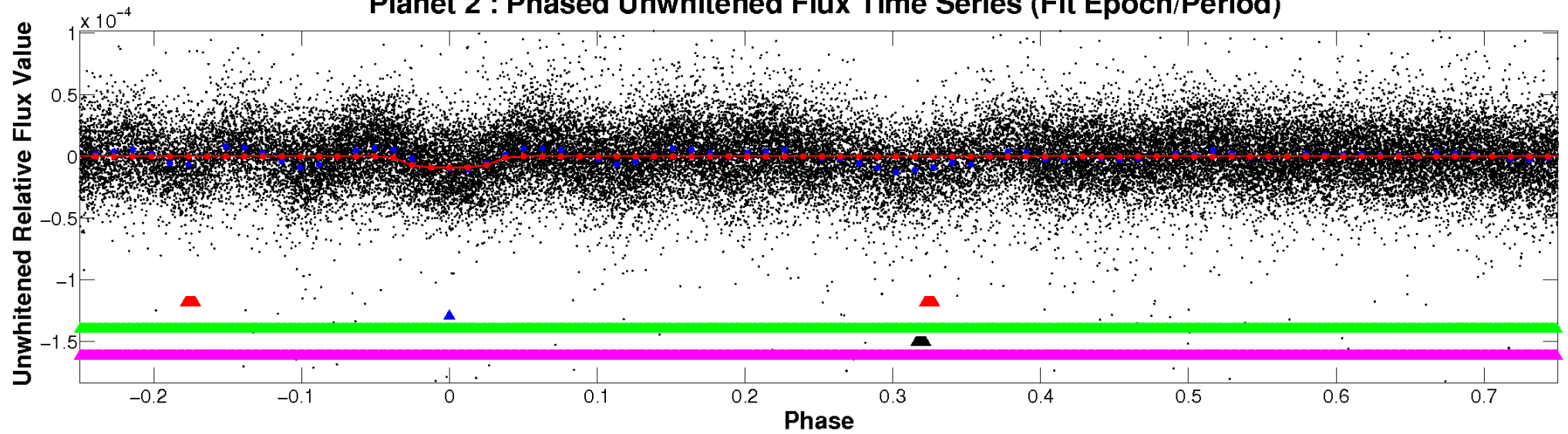
ALT Odd/Even

TCE 006426158-02

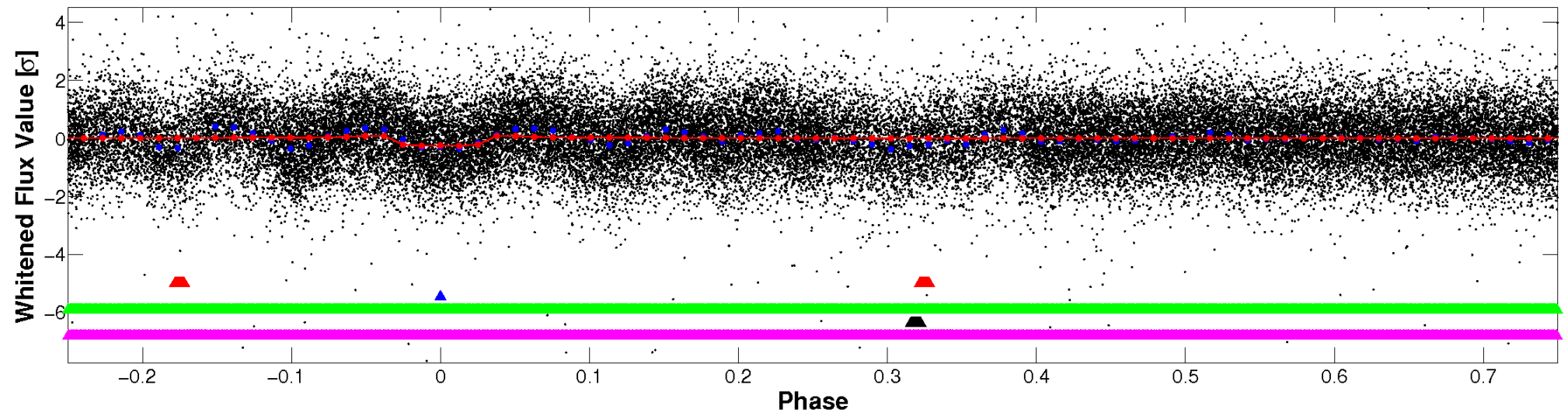


Non-Whitened Vs. Whitened Light Curve

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

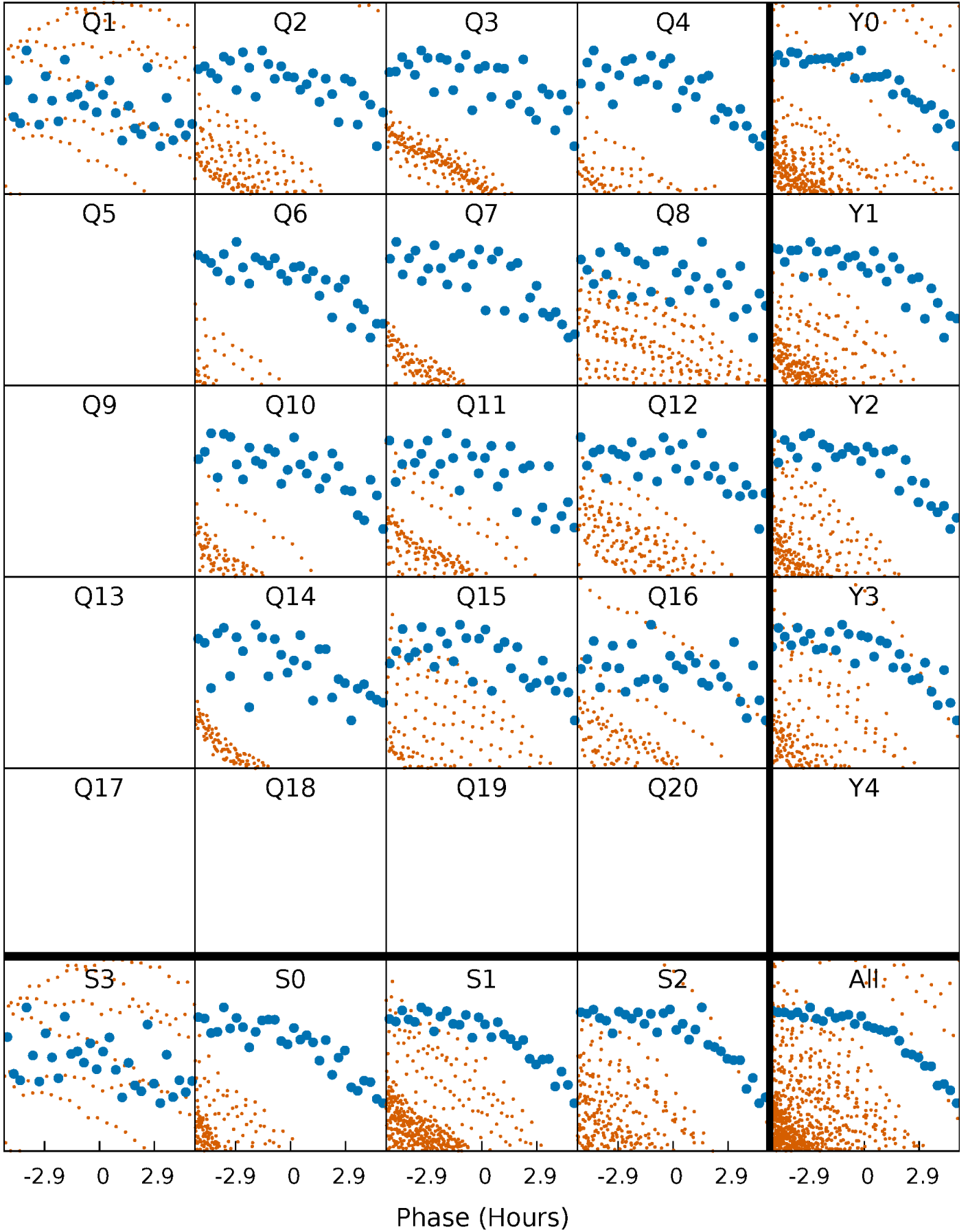


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



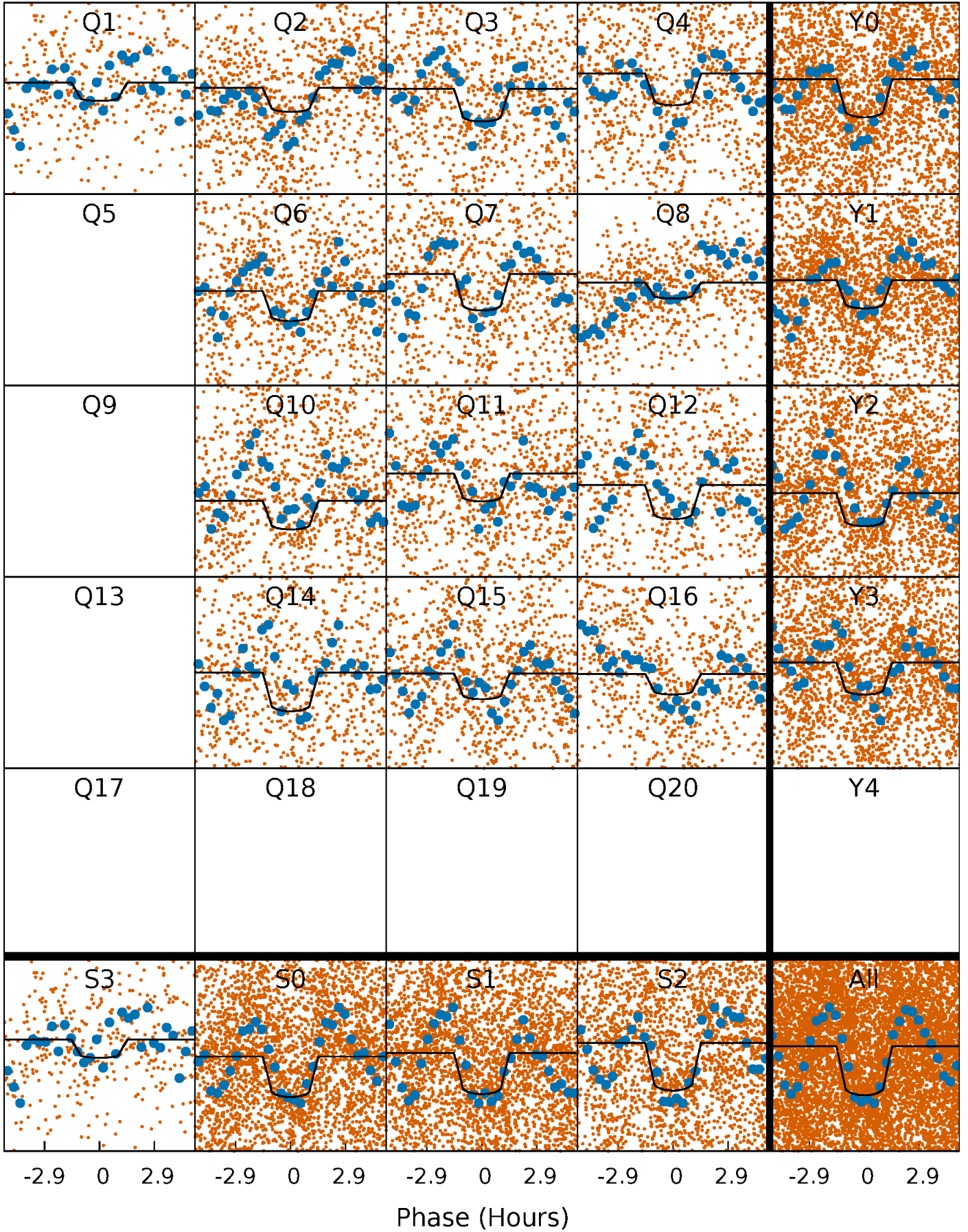
PDC Quarter-Phased Transit Curves

TCE 006426158-02 P= 1.621833 Days $T_0=131.733001$ (BKJD)



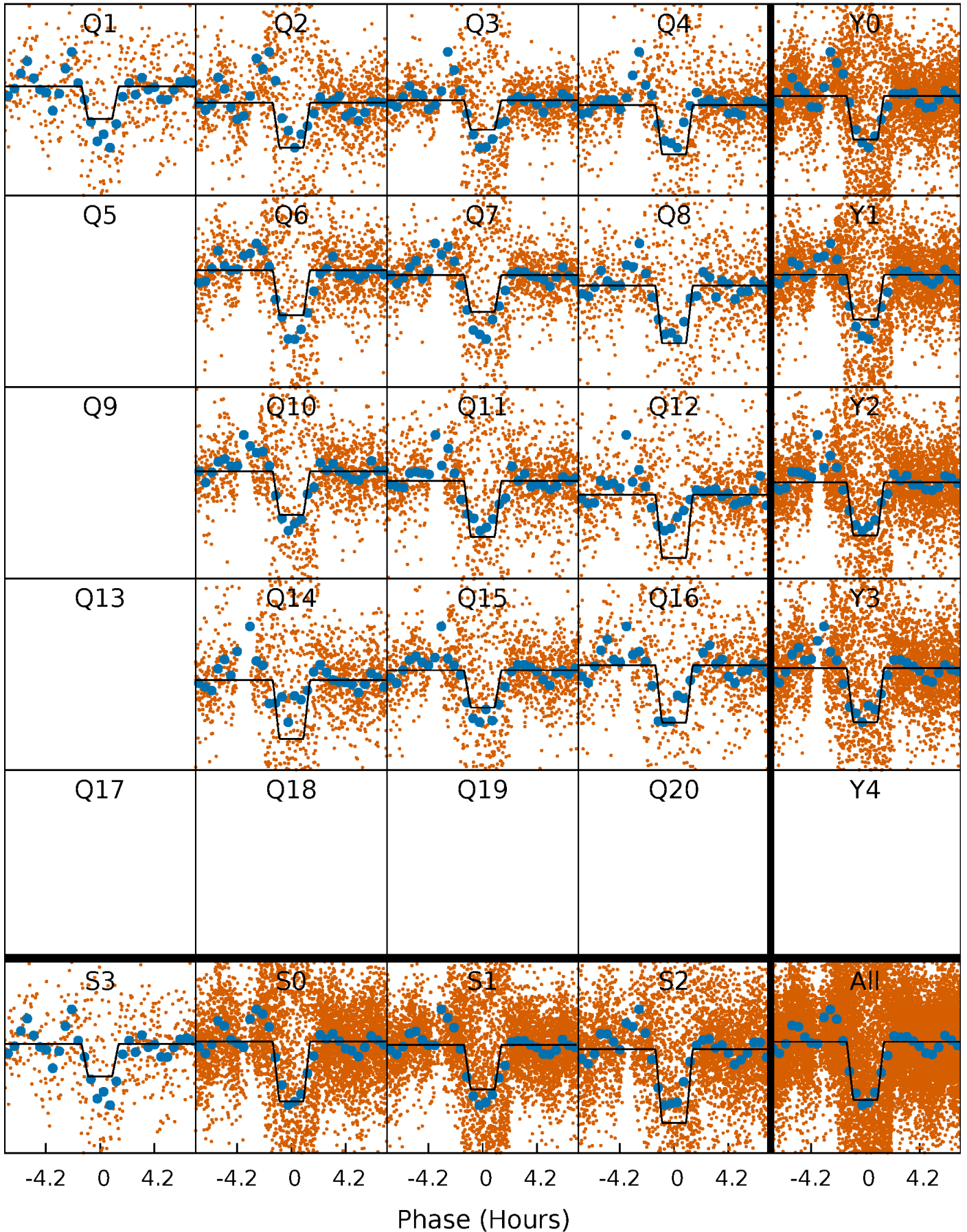
DV Quarter-Phased Transit Curves

TCE 006426158-02 P= 1.621833 Days $T_0=131.733001$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

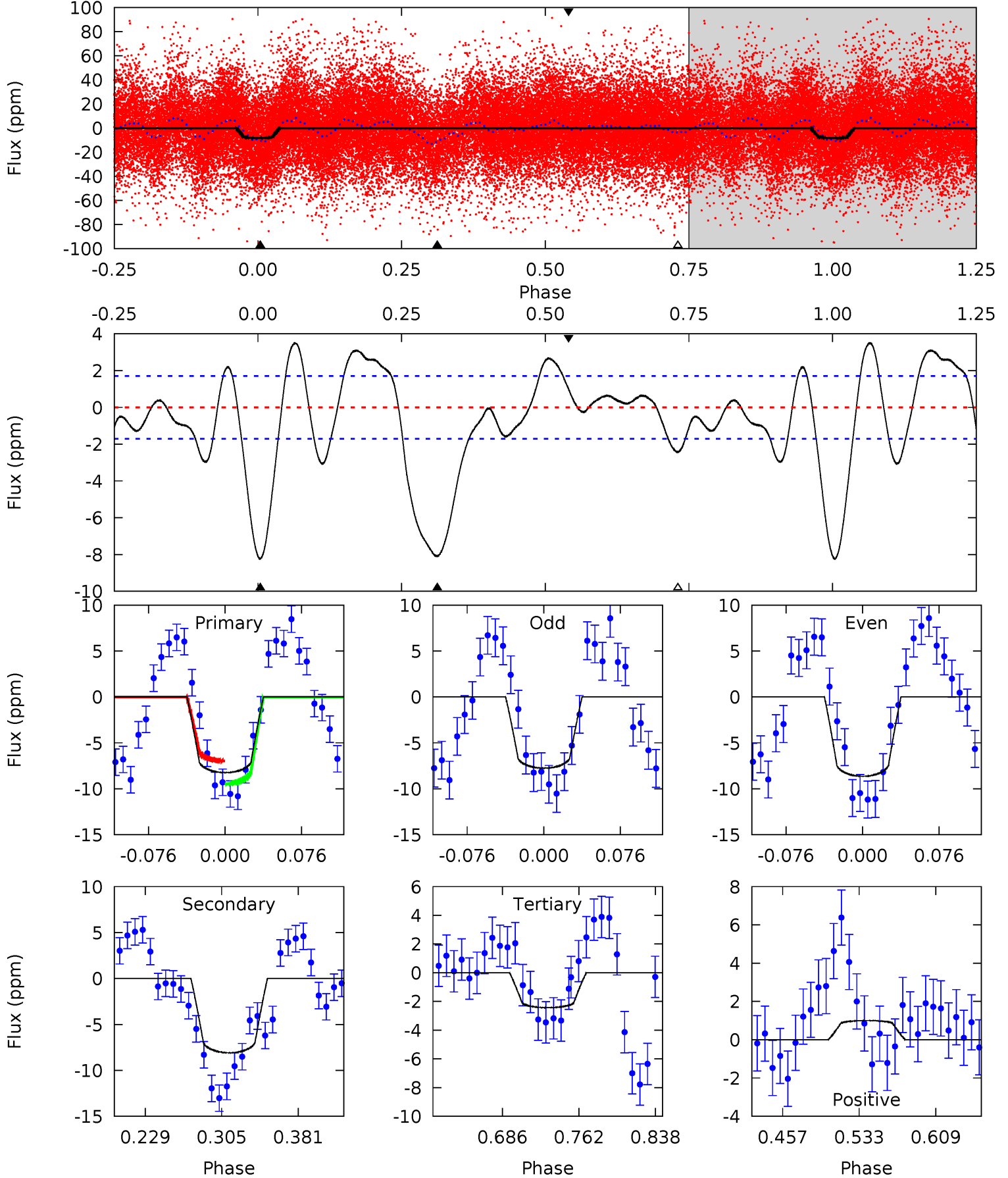
TCE 006426158-02 P= 1.621858 Days $T_0=131.707890$ (BKJD)



DV Model-Shift Uniqueness Test

006426158-02, P = 1.621833 Days, E = 130.111168 Days

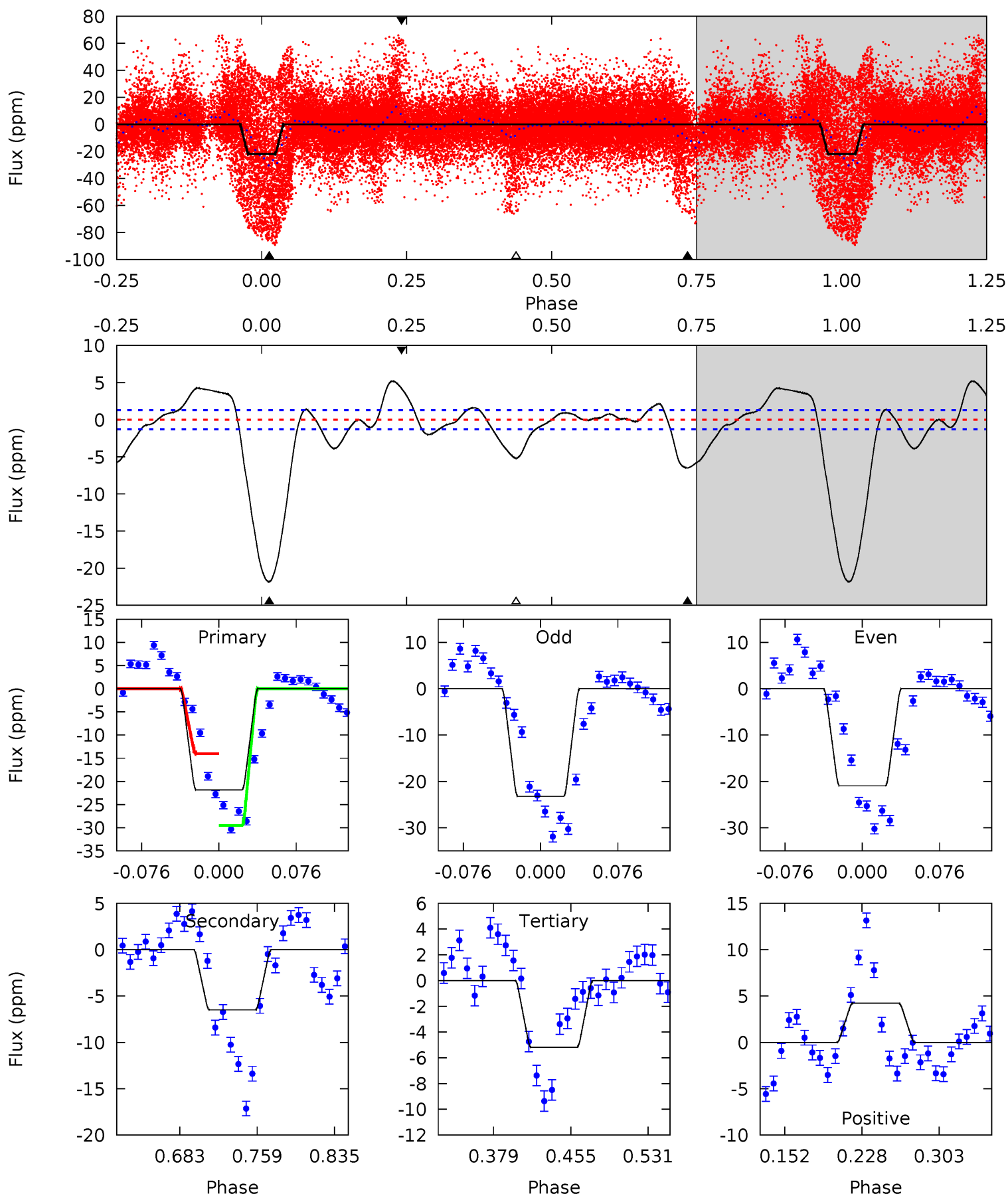
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.3	21.9	6.59	2.71	4.62	1.77	4.25	15.7	19.6	15.3	19.2	1.20	0.99	0.30	3.38



Alt Model-Shift Uniqueness Test

006426158-02, P = 1.621858 Days, E = 130.086032 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
78.1	23.3	18.6	15.1	4.62	1.78	7.85	59.5	62.9	4.69	8.14	4.03	0.91	0.19	0



Stellar Parameters For KIC 006426158

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	10155^{+286}_{-429}	$4.183^{+0.151}_{-0.280}$	$0.070^{+0.150}_{-0.550}$	$2.089^{+0.999}_{-0.538}$	$2.426^{+0.481}_{-0.481}$	$0.375^{+0.356}_{-0.238}$
	+3%/-4%	+4%/-7%	+214%/-786%	+48%/-26%	+20%/-20%	+95%/-64%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 006426158-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-8 ± 0	$0.74^{+0.18}_{-0.11}$	4807^{+483}_{-365}	9190^{+533}_{-480}	10^{+4}_{-3}
Alt.	-7 ± 0	$1.16^{+0.28}_{-0.18}$	4820^{+529}_{-348}	6531^{+245}_{-244}	$3.449^{+1.166}_{-1.118}$

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

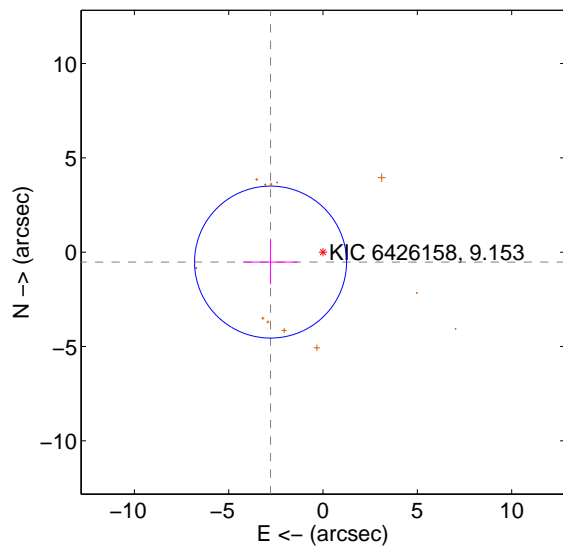
Supplemental centroid analysis for 006426158-02. **Kepler magnitude: 9.15.** Transit SNR 14.54

There are 0 quarters with good PRF difference image offsets

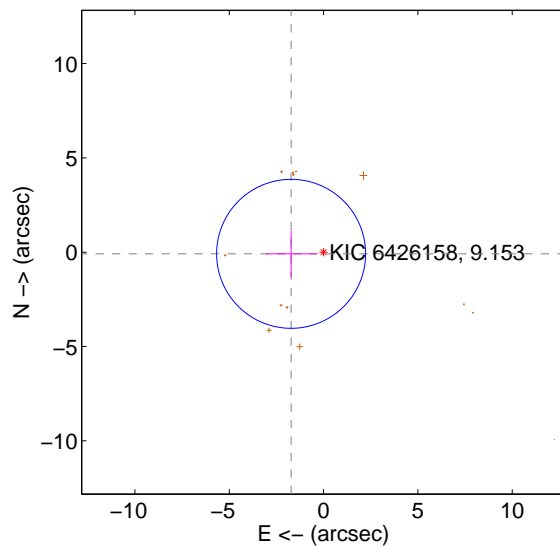
The direct PRF centroid is offset from the target star catalog position by about 1.35 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.830 ± 1.342	2.11	2.781 ± 1.443	-0.525 ± 1.175
PRF-fit source offset from KIC position	1.723 ± 1.316	1.31	1.721 ± 1.347	-0.088 ± 1.212
photometric centroid source offset	5.35 ± 1.78	3.01	-4.04 ± 2.02	-3.51 ± 1.38

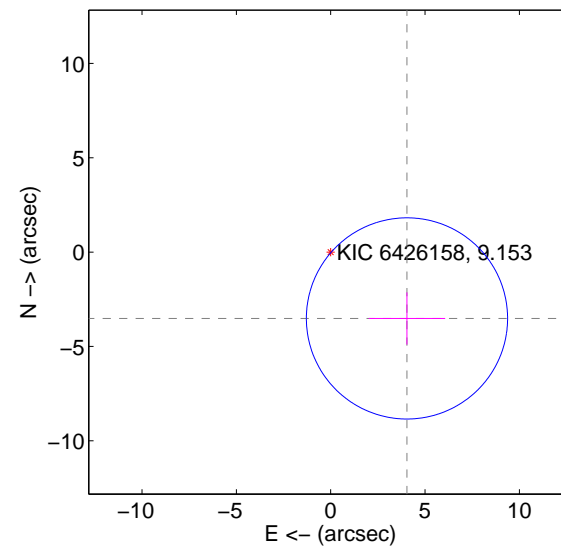
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

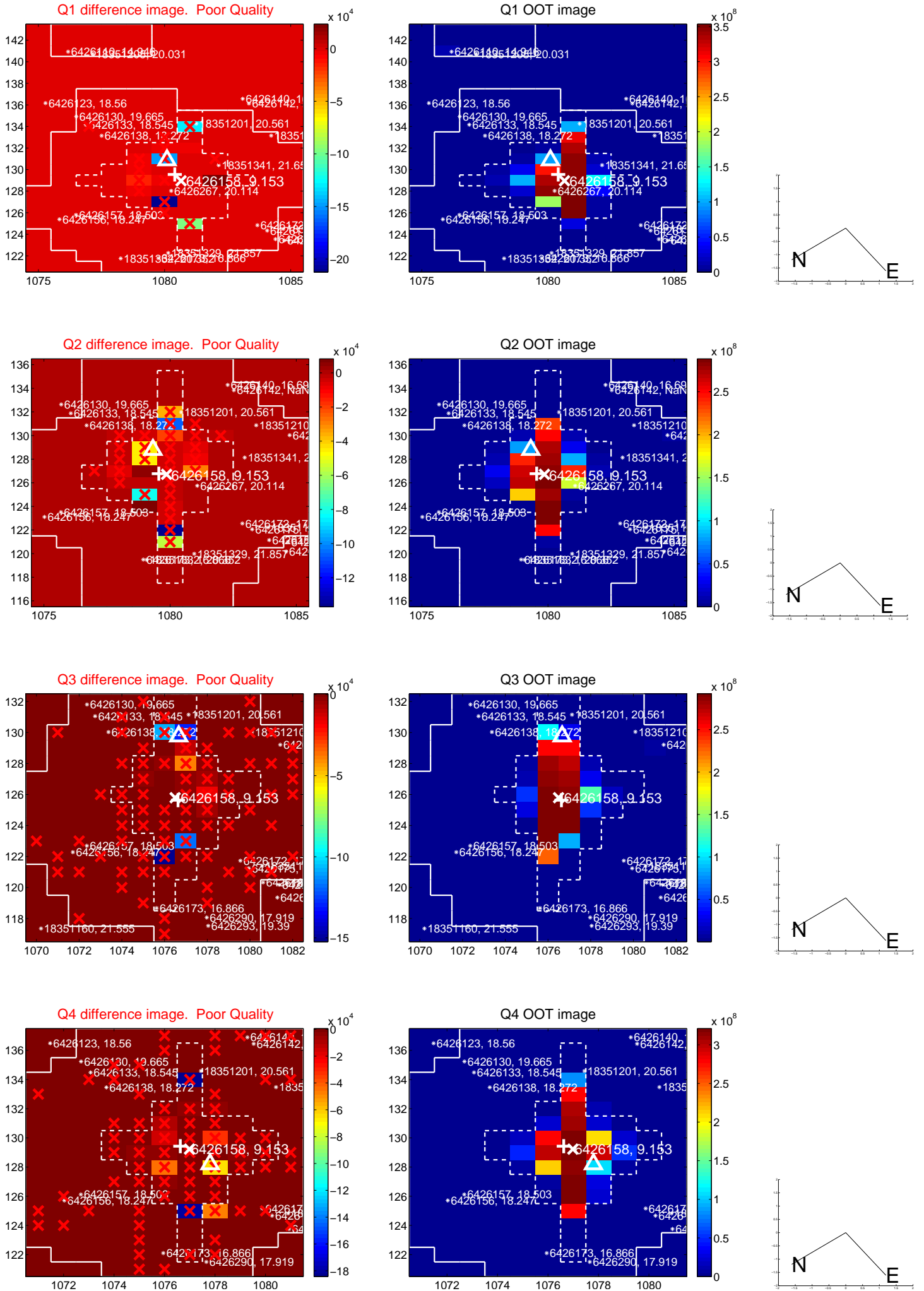


offset from photometric centroids

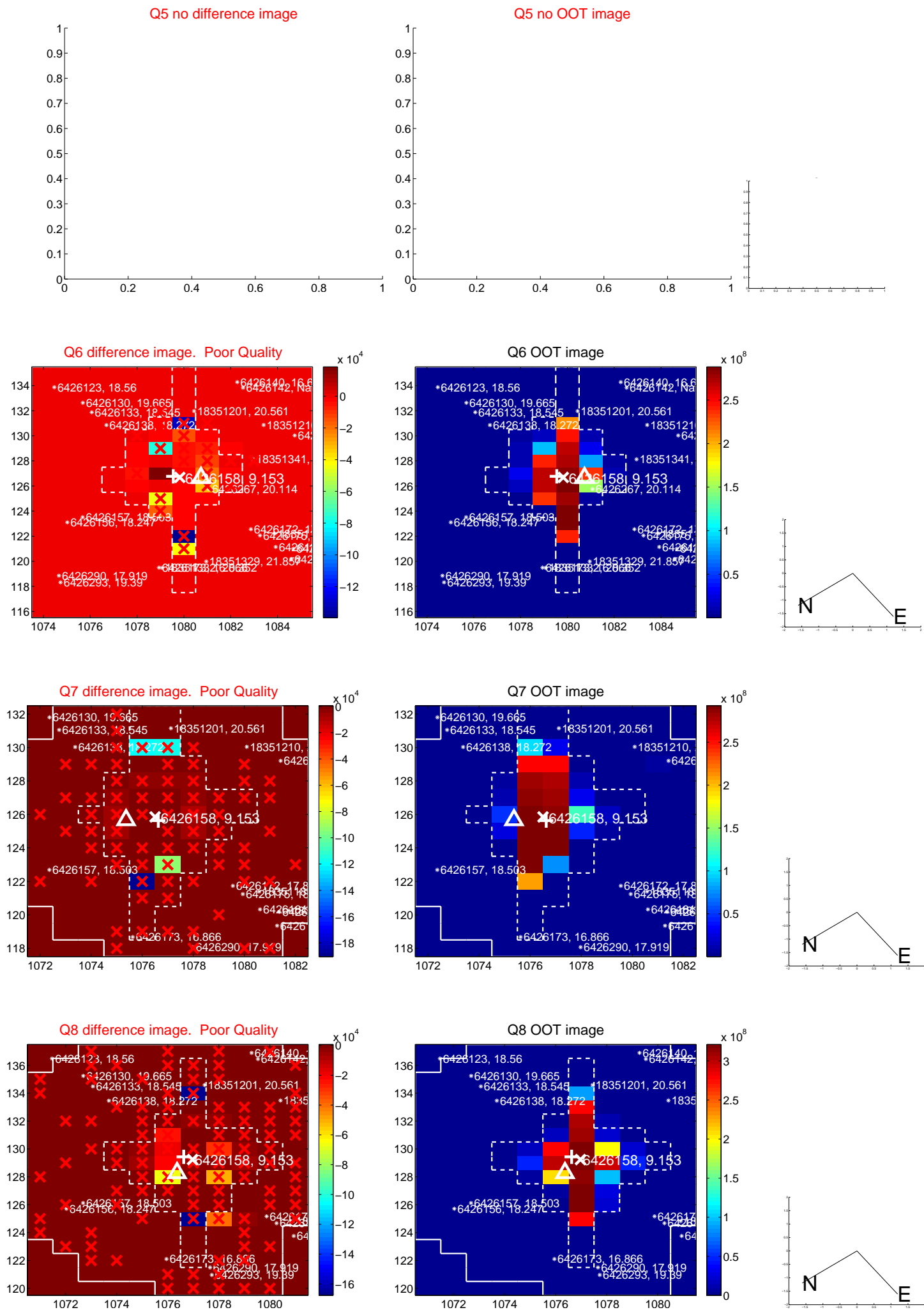


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

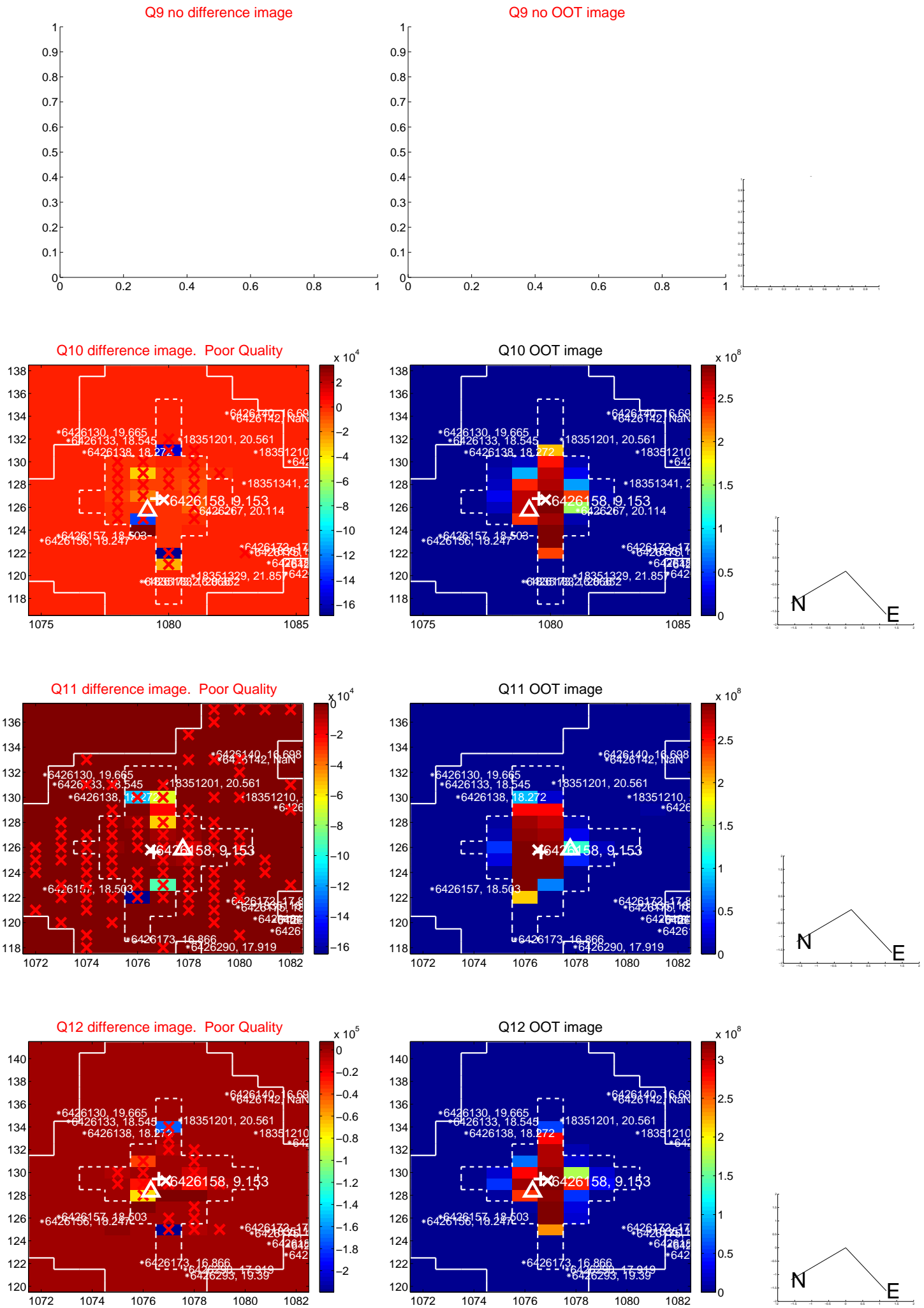
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



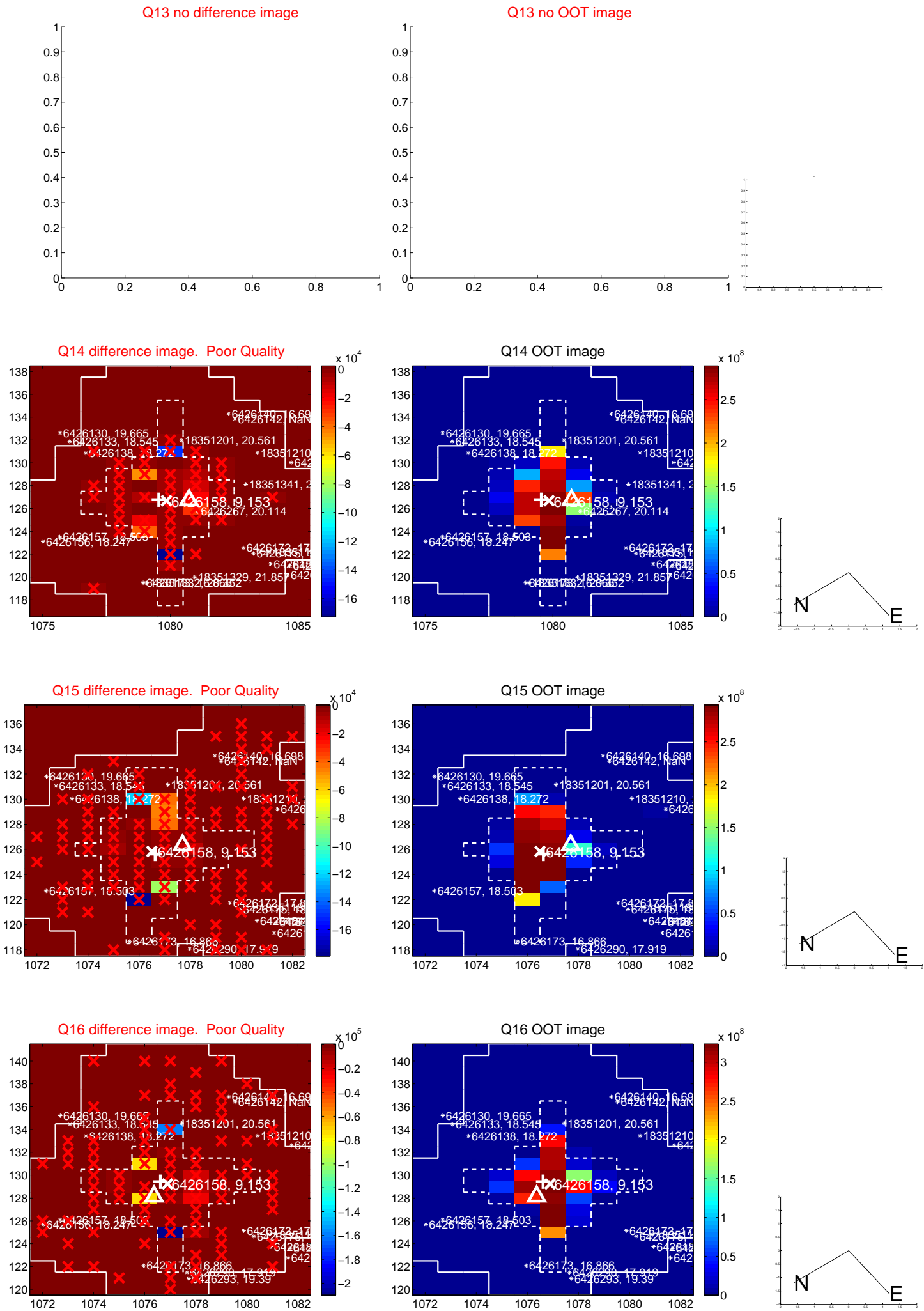
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



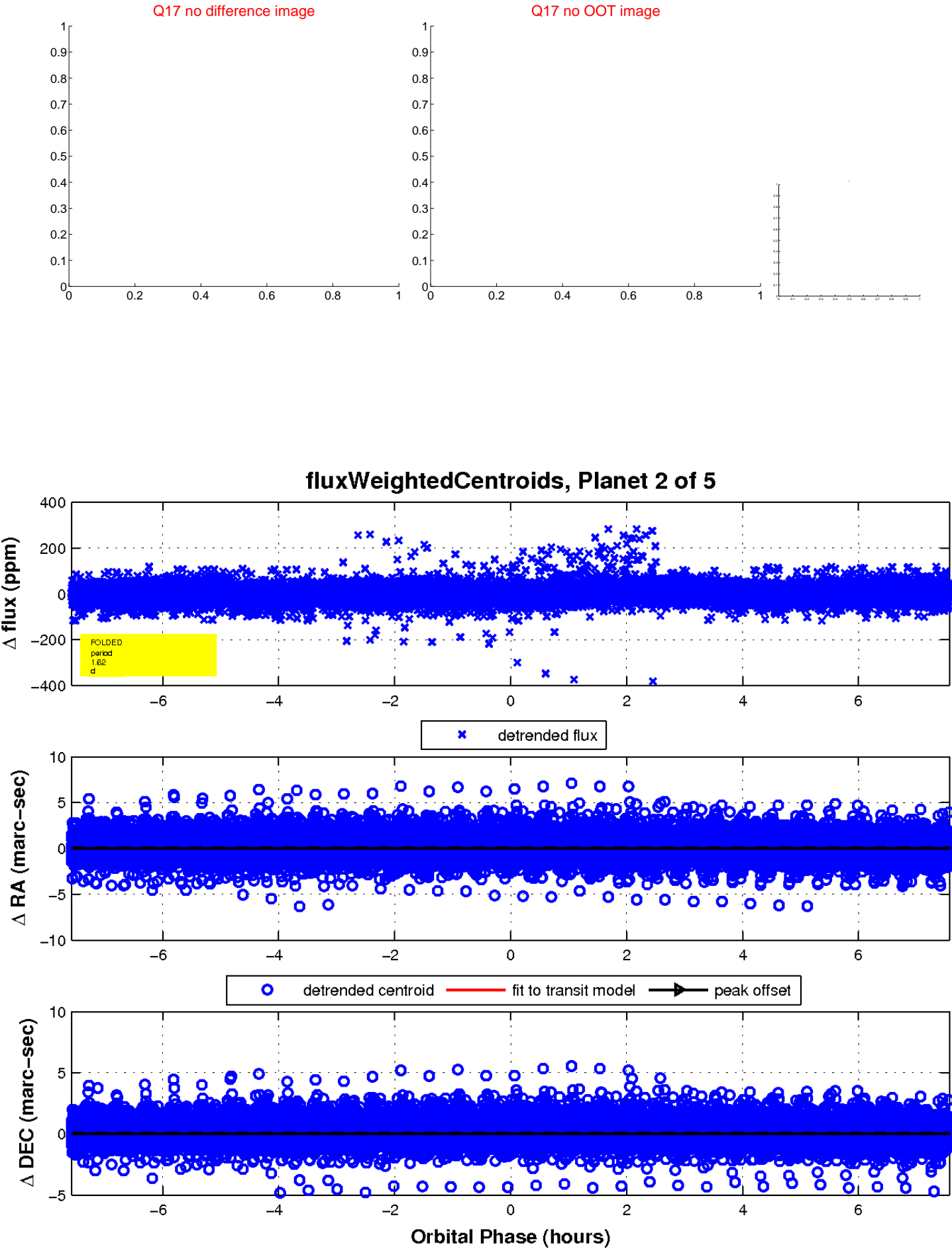
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

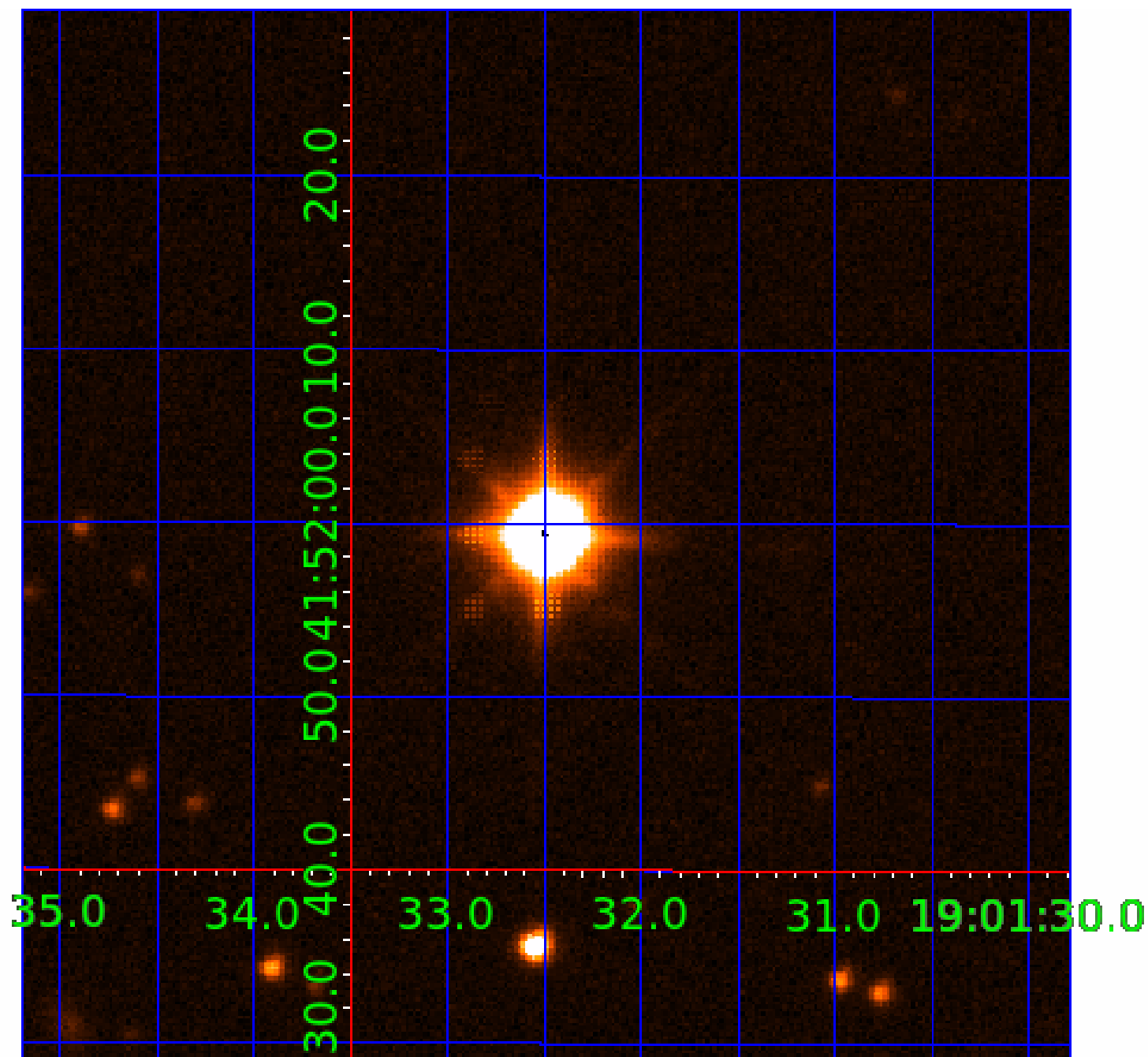


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006426158

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})
006426158-01	OBS	No	2.432733	132.264890	4.4	1.575	12.7	5.1	2.09	10155	0.51	18370.19
006426158-02	OBS	No	1.621833	131.733001	9.2	2.524	17.8	14.5	2.09	10155	0.73	31542.64
006426158-03	OBS	No	0.608342	132.002446	2.7	2.340	15.5	5.7	2.09	10155	0.37	116603.00
006426158-04	OBS	No	1.621822	132.255448	10.5	2.711	11.3	12.1	2.09	10155	0.75	31542.93
006426158-05	OBS	No	0.811832	132.267124	0.2	0.642	9.7	0.2	2.09	10155	0.10	79362.97

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006426158-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006426158-02	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
006426158-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006426158-04	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_SATURATED
006426158-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED

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

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

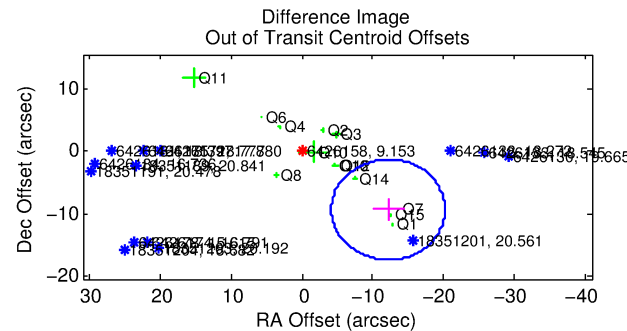
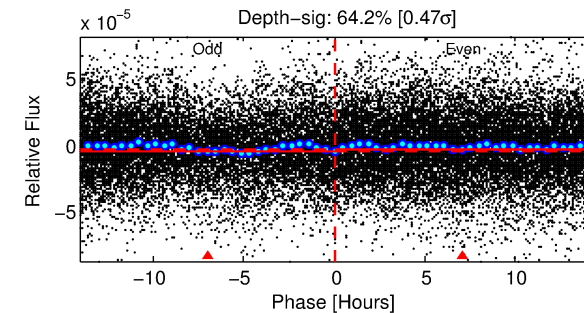
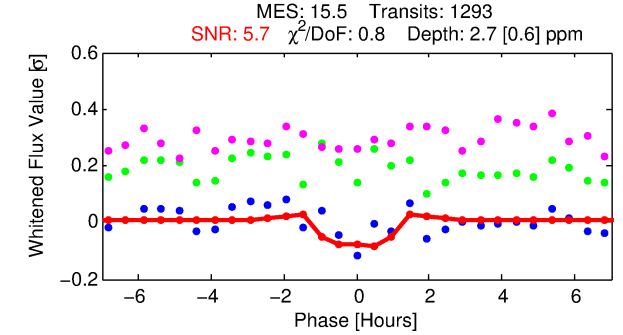
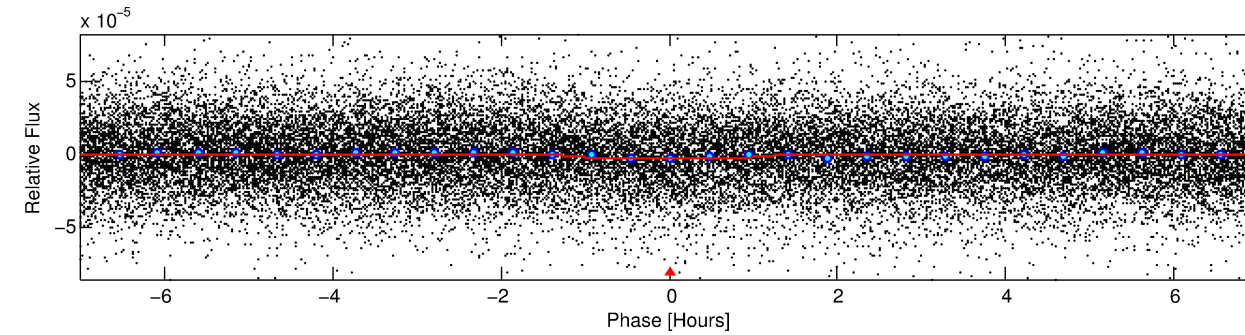
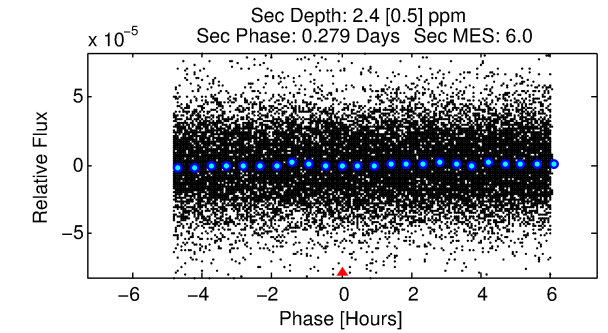
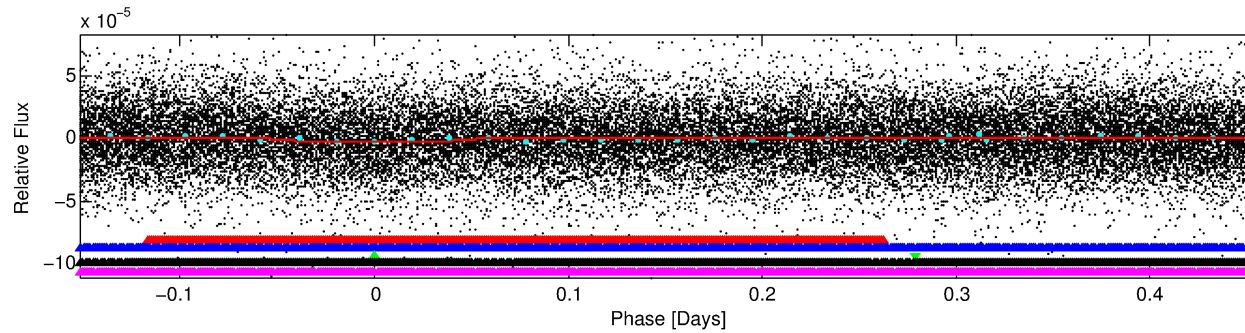
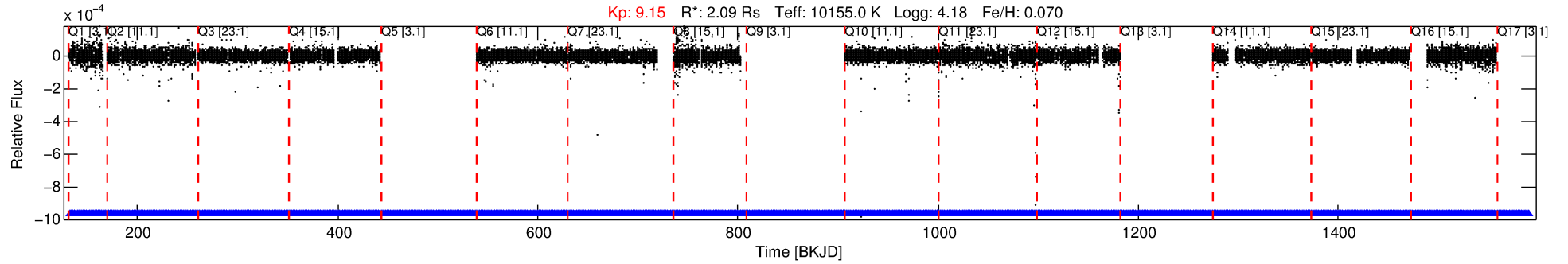
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006426158-03

No Significant Match Found

DV One-Page Summary

KIC: 6426158 Candidate: 3 of 5 Period: 0.608 d



DV Fit Results:

Period = 0.60834 [0.00002] d
Epoch = 132.0024 [0.0038] BKJD
Rp/R* = 0.0016 [0.0002]
a/R* = 1.63 [0.41]
b = 0.70 [0.29]
Seff = 116603.00 [65436.81]
Teq = 4712 [661] K
Rp = 0.37 [0.18] Re
a = 0.0189 [0.0073] AU
Ag = 3.53 [2.22] [1.14σ]
Teffp = 9985 [925] K [4.64σ]

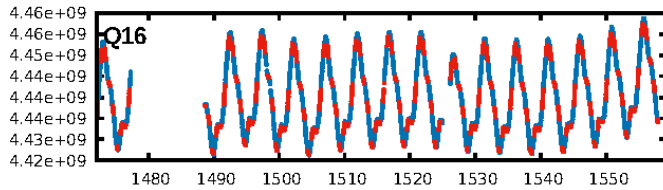
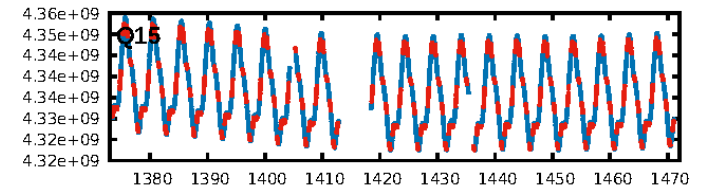
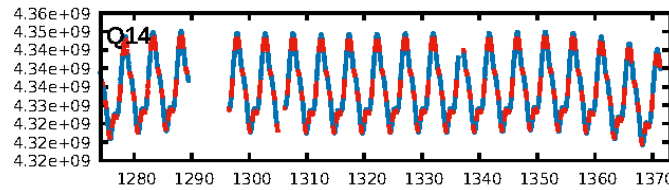
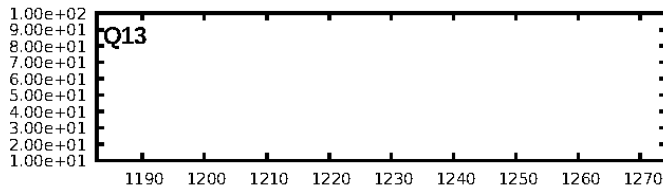
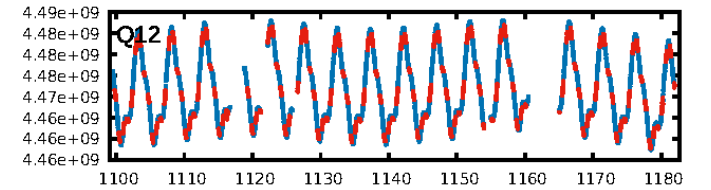
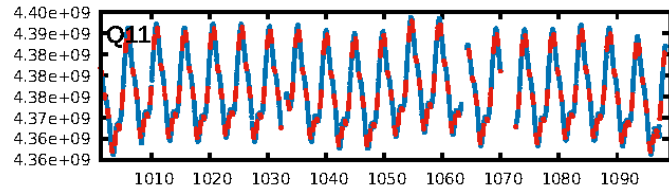
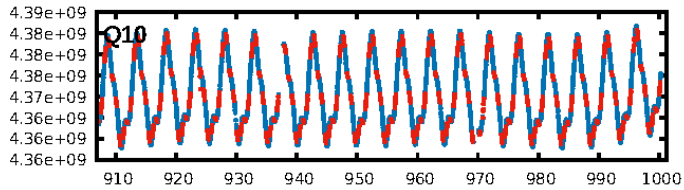
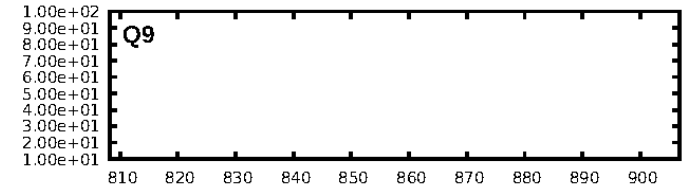
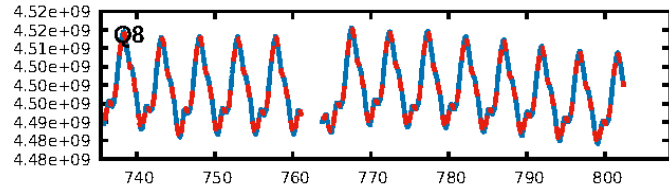
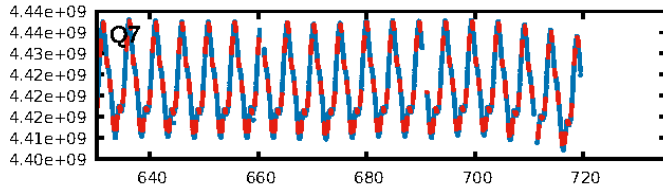
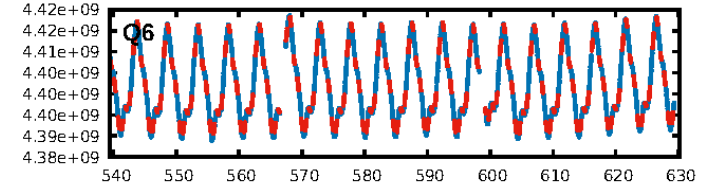
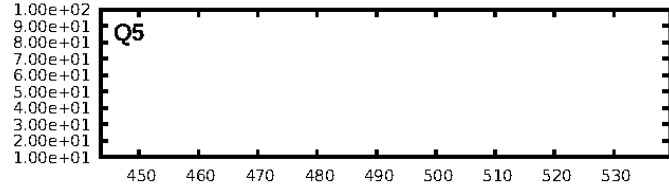
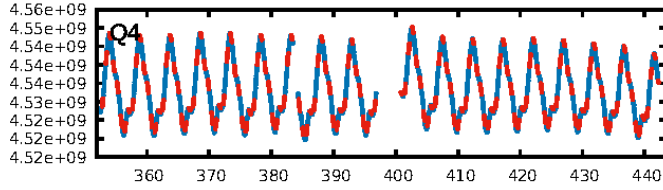
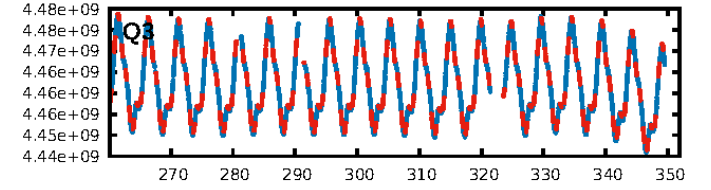
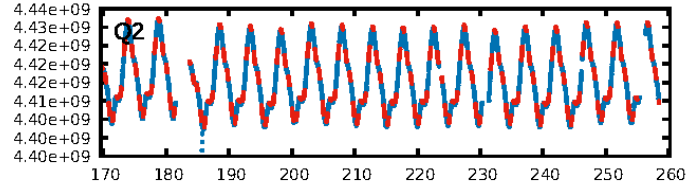
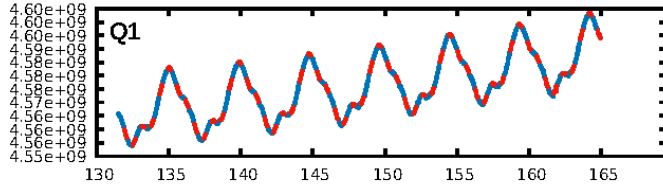
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 95.6% [2.01σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1245/1245]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 15.385 arcsec [5.74σ]
KicOffset-rm: 15.175 arcsec [5.16σ]
OotOffset-st: 4/4/4/1 [13]
KicOffset-st: 4/4/4/1 [13]
DiffImageQuality-fgm: 0.15 [2/13]
DiffImageOverlap-fno: 0.31 [4/13]

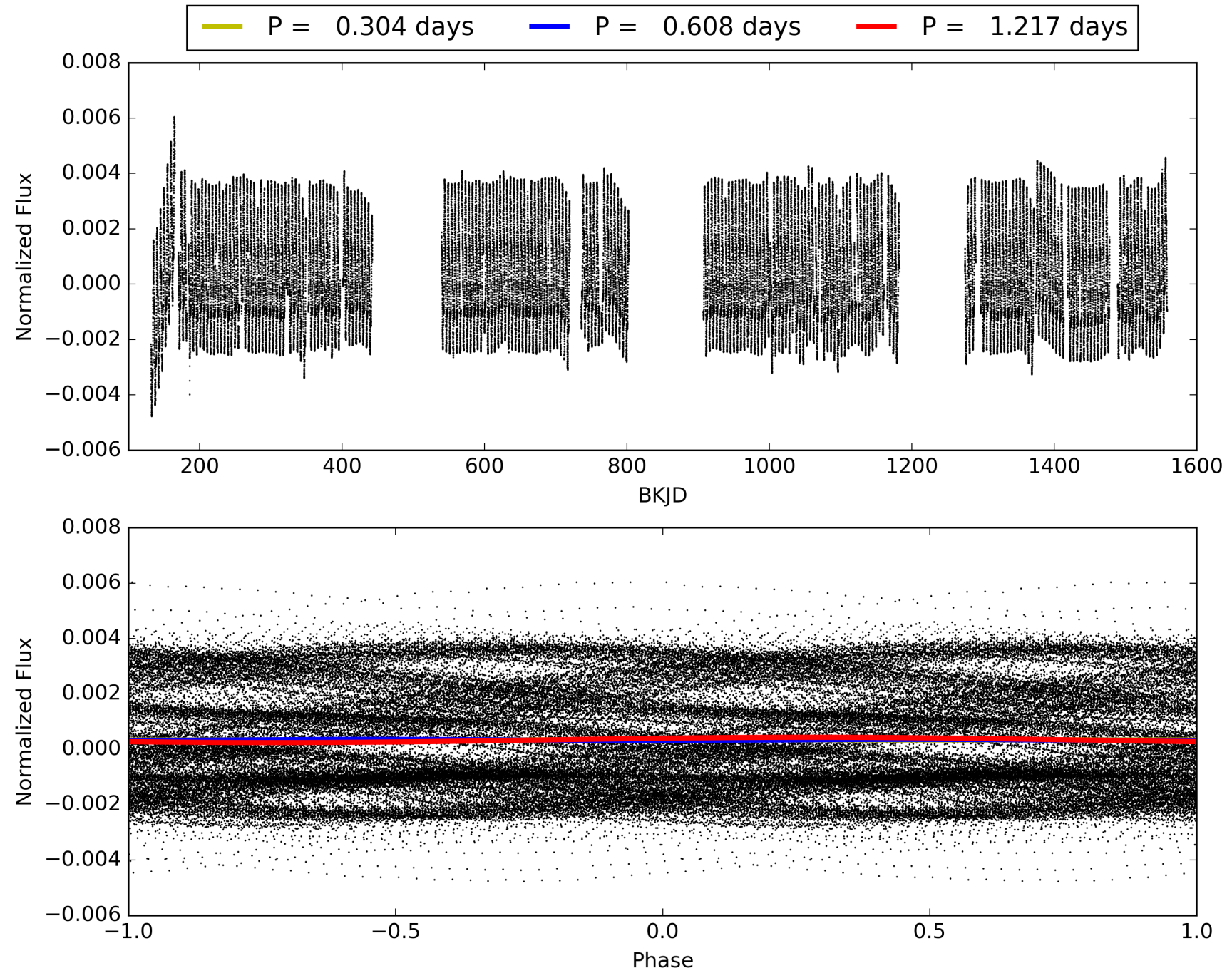
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 07:25:37 Z

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

TCE 006426158-03, PDC Light Curves

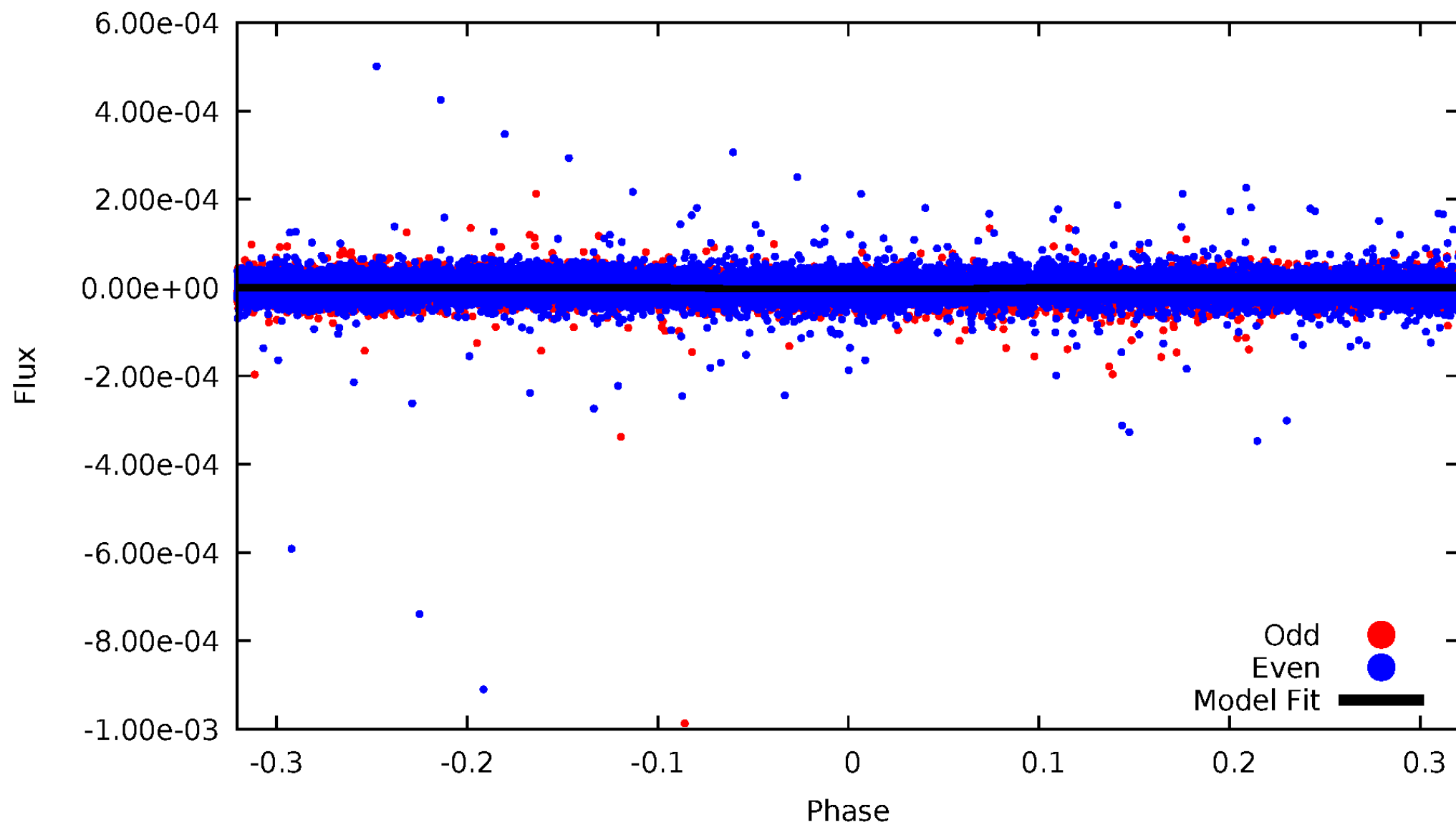


TCE 006426158-03



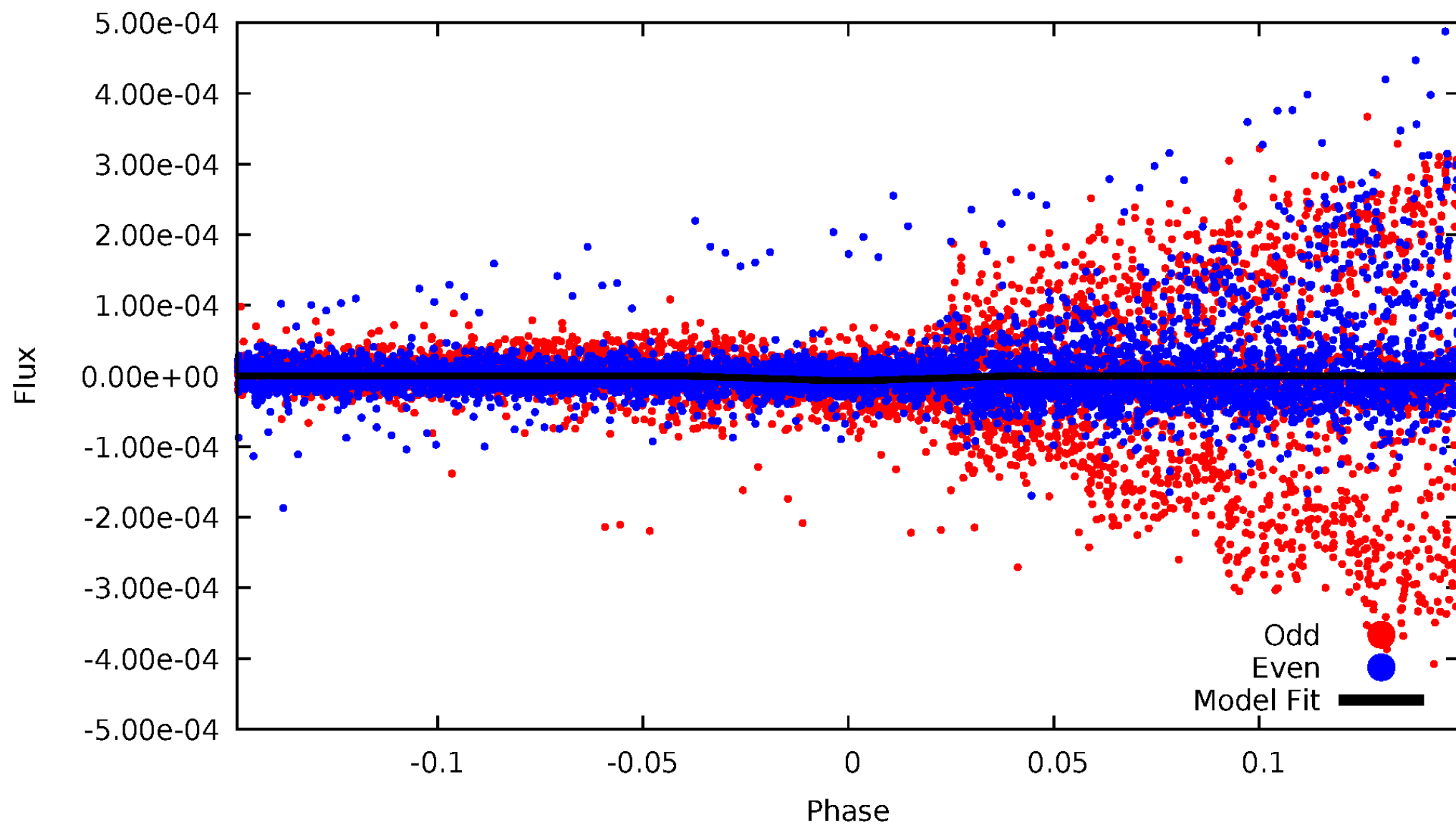
DV Odd/Even

TCE 006426158-03



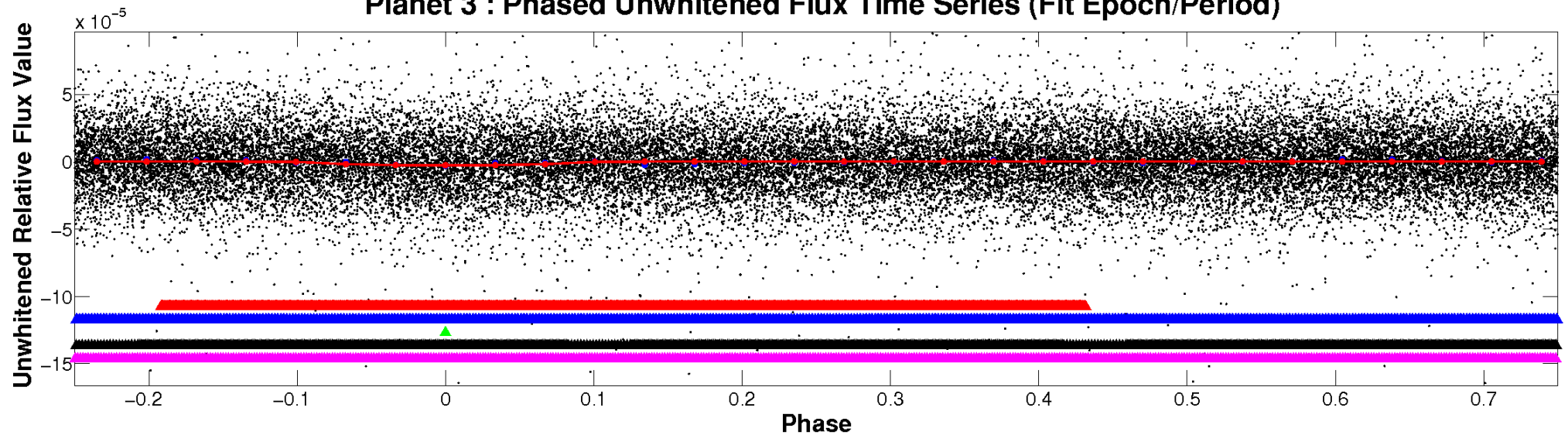
ALT Odd/Even

TCE 006426158-03

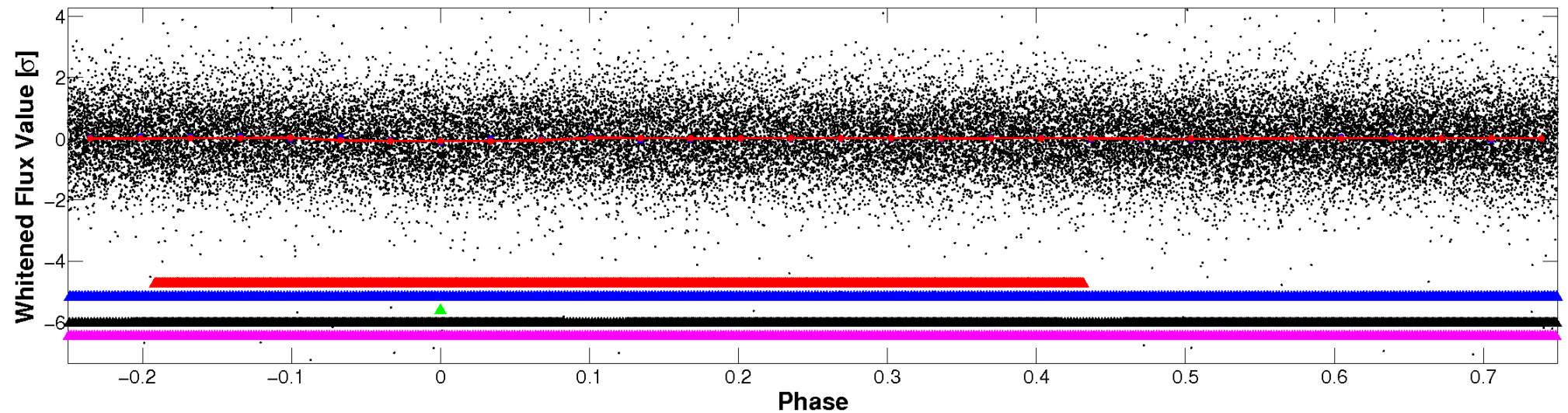


Non-Whitened Vs. Whitened Light Curve

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

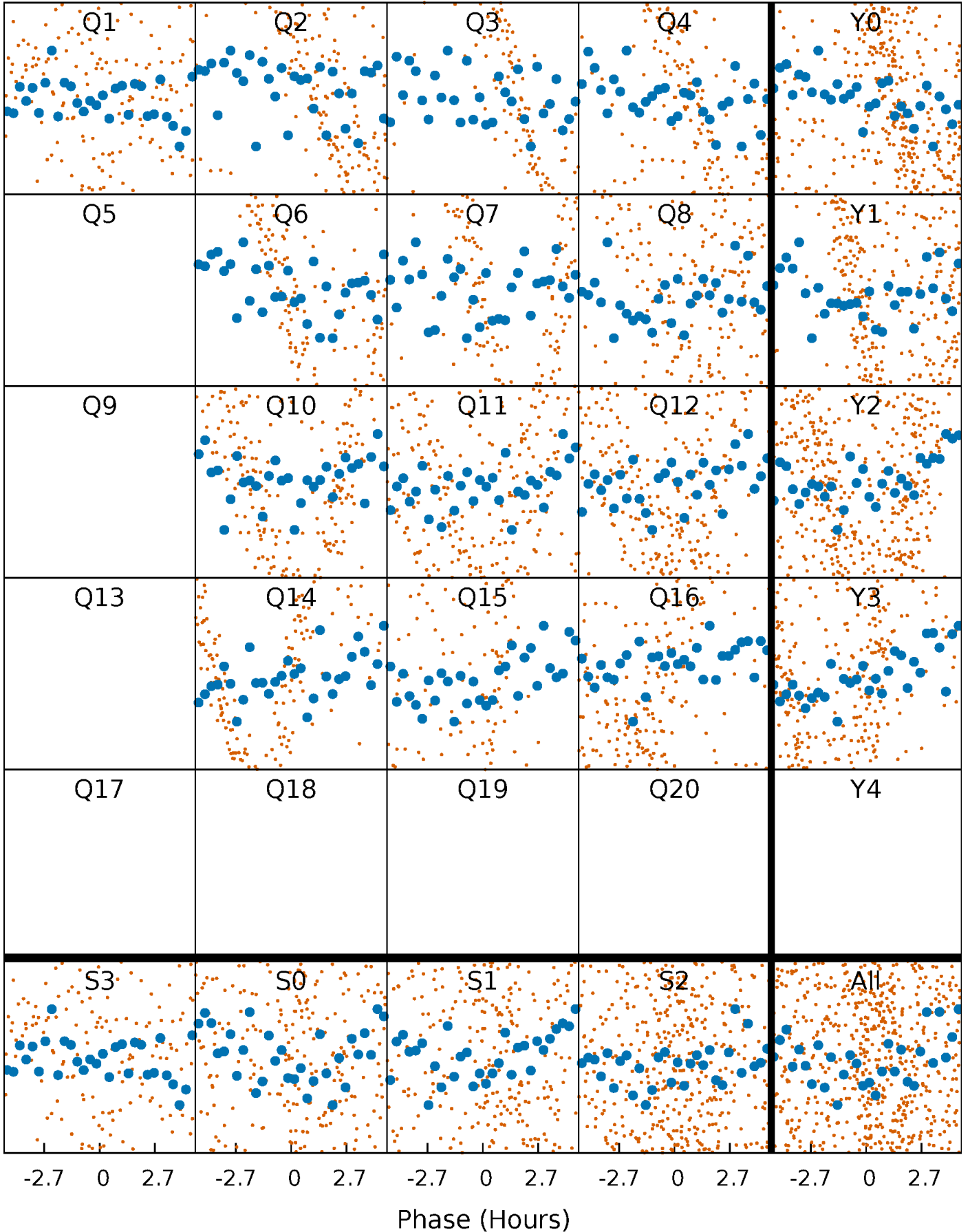


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



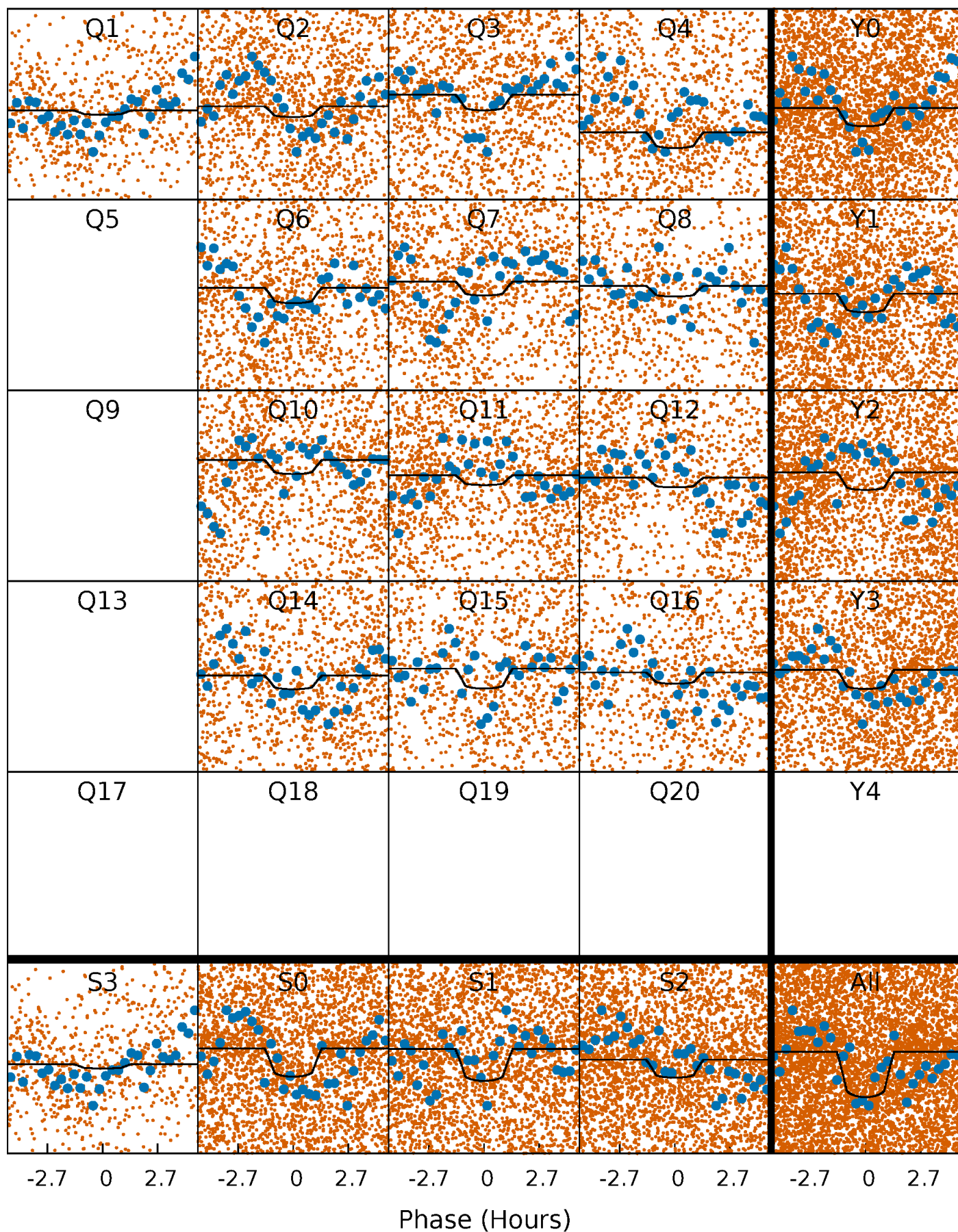
PDC Quarter-Phased Transit Curves

TCE 006426158-03 P= 0.608342 Days $T_0=132.002446$ (BKJD)



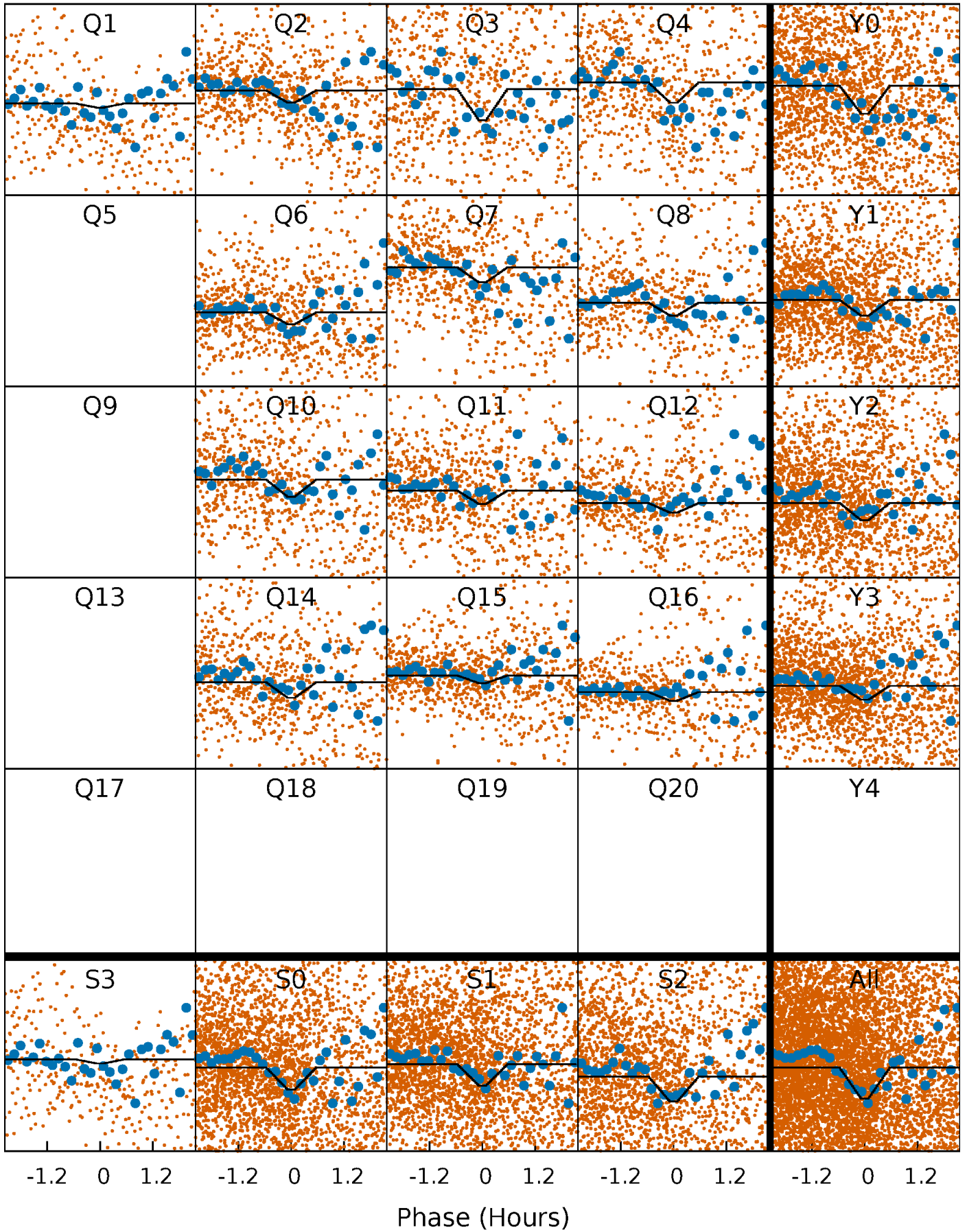
DV Quarter-Phased Transit Curves

TCE 006426158-03 P= 0.608342 Days $T_0=132.002446$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

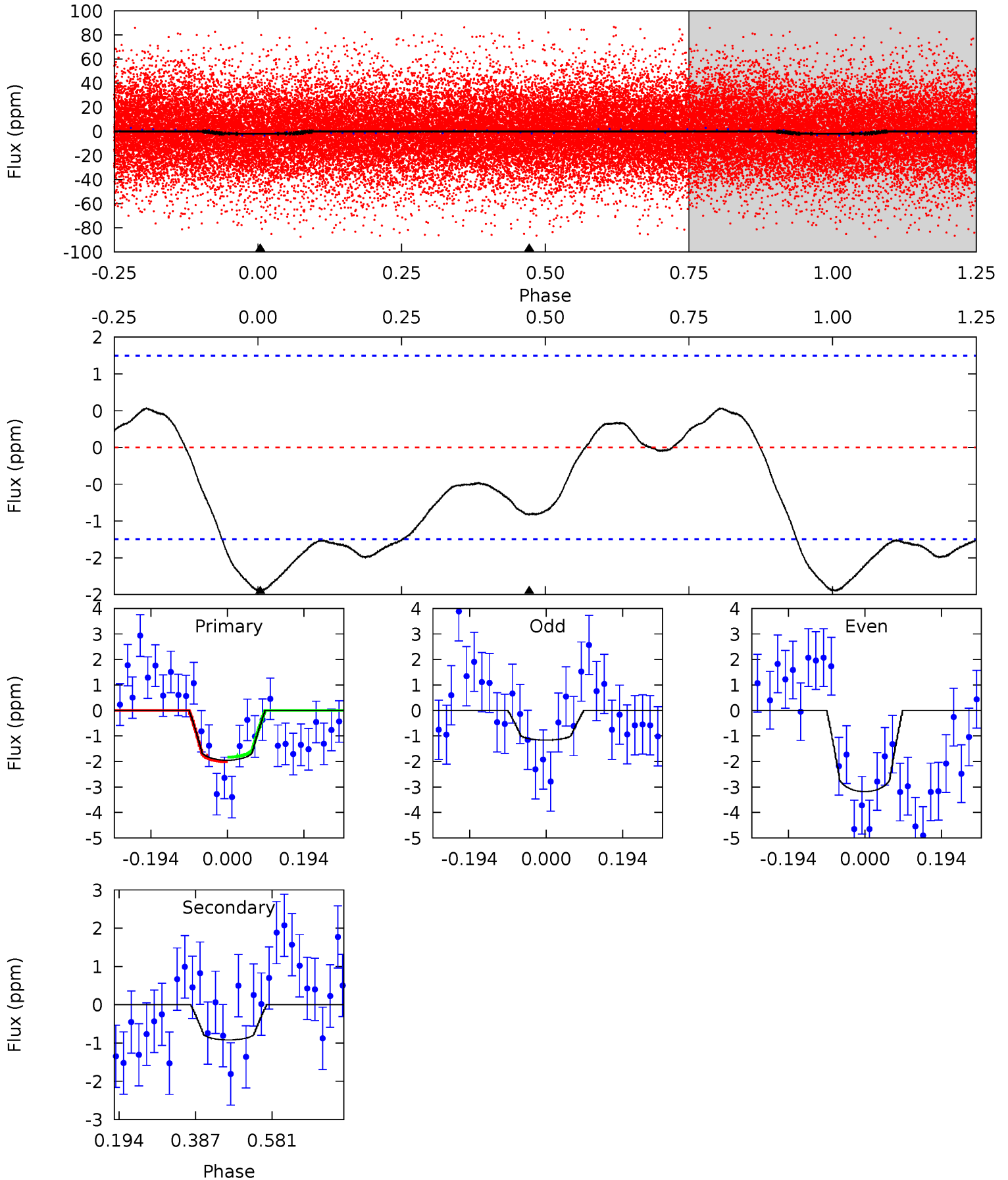
TCE 006426158-03 P= 0.608196 Days $T_0=131.966934$ (BKJD)



DV Model-Shift Uniqueness Test

006426158-03, P = 0.608342 Days, E = 131.394104 Days

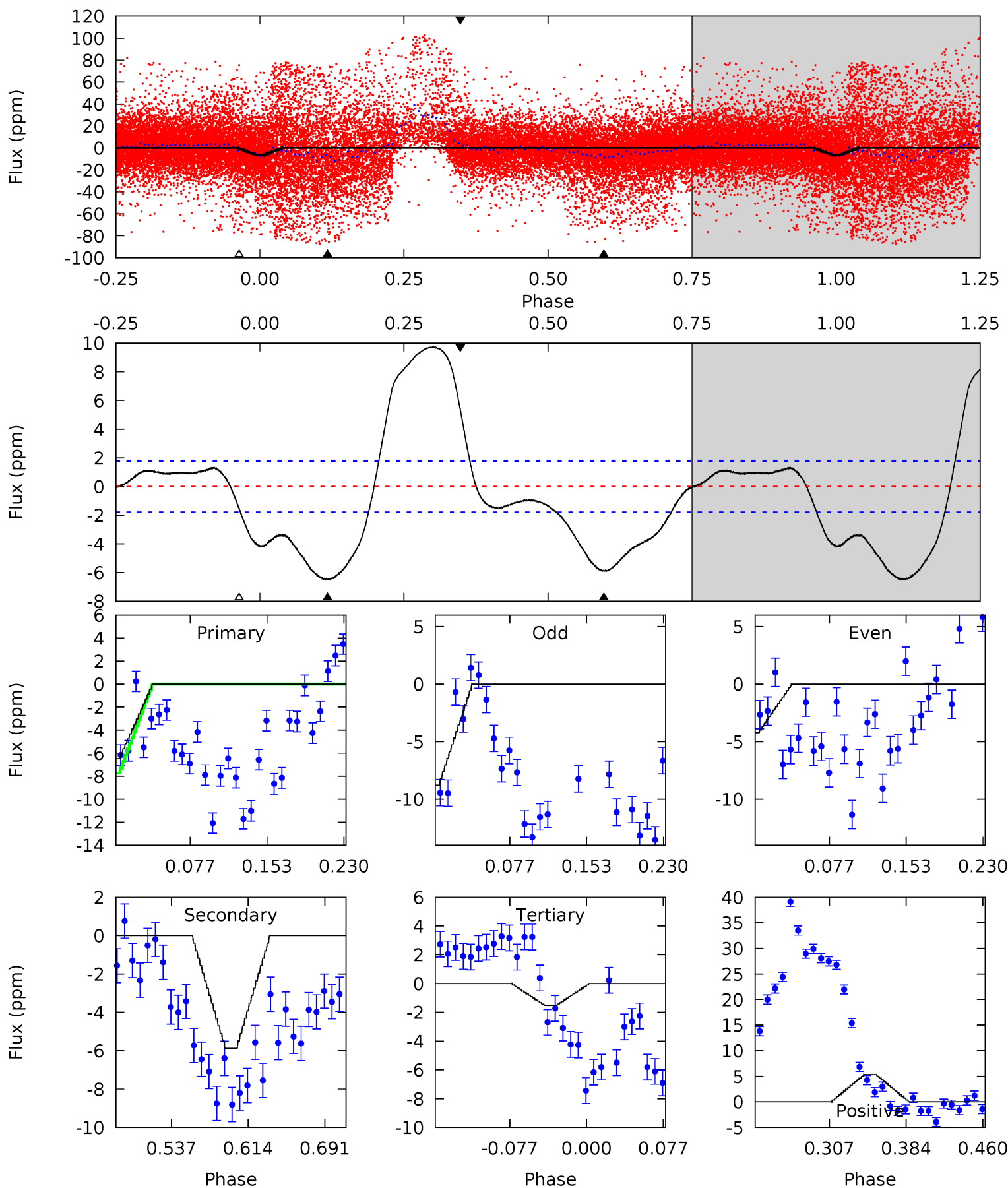
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.91	3.26	0	0	4.42	1.30	2.51	6.91	6.91	3.26	3.26	3.57	1.38	0.22	0.30



Alt Model-Shift Uniqueness Test

006426158-03, P = 0.608196 Days, E = 131.966934 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.8	15.2	3.93	13.8	4.62	1.77	7.56	12.8	2.91	11.2	1.33	6.03	1.62	0.60	2.35



Stellar Parameters For KIC 006426158

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	10155^{+286}_{-429}	$4.183^{+0.151}_{-0.280}$	$0.070^{+0.150}_{-0.550}$	$2.089^{+0.999}_{-0.538}$	$2.426^{+0.481}_{-0.481}$	$0.375^{+0.356}_{-0.238}$
	+3%/-4%	+4%/-7%	+214%/-786%	+48%/-26%	+20%/-20%	+95%/-64%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 006426158-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-1 ± 0	$0.39^{+0.11}_{-0.08}$	6741^{+767}_{-577}	6555^{+1035}_{-985}	$1.157^{+0.756}_{-0.509}$
Alt.	-6 ± 0	$0.58^{+0.16}_{-0.09}$	6670^{+749}_{-535}	9540^{+809}_{-690}	$3.323^{+1.282}_{-1.134}$

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 $A_{obs} \gg 1.0$

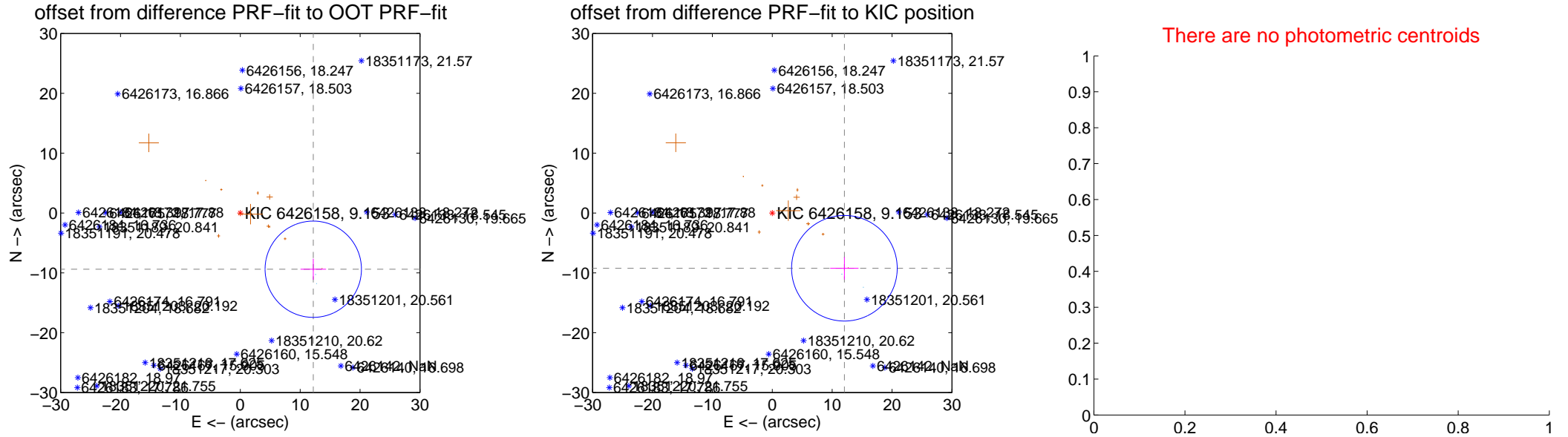
DV Centroid Data

Supplemental centroid analysis for 006426158-03. **Kepler magnitude: 9.15.** Transit SNR 5.72

There are 2 quarters with good PRF difference image offsets

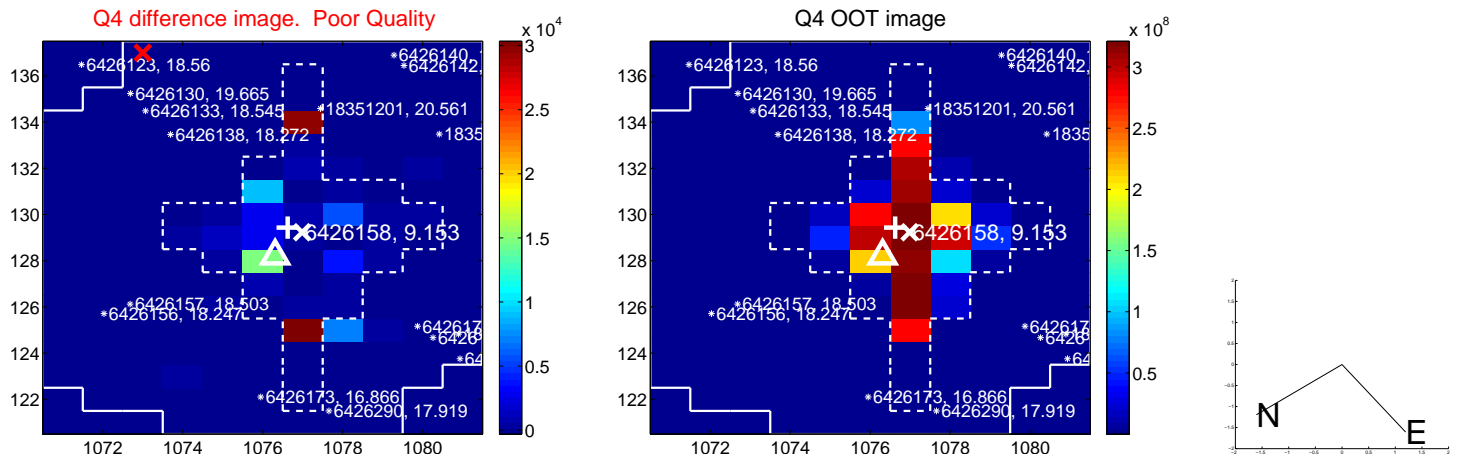
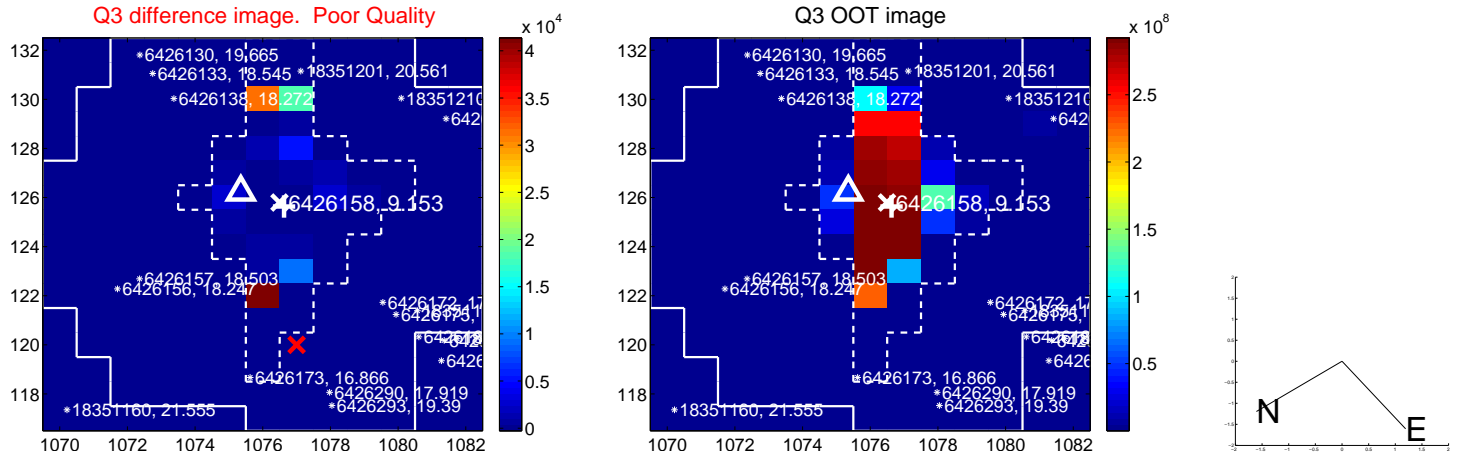
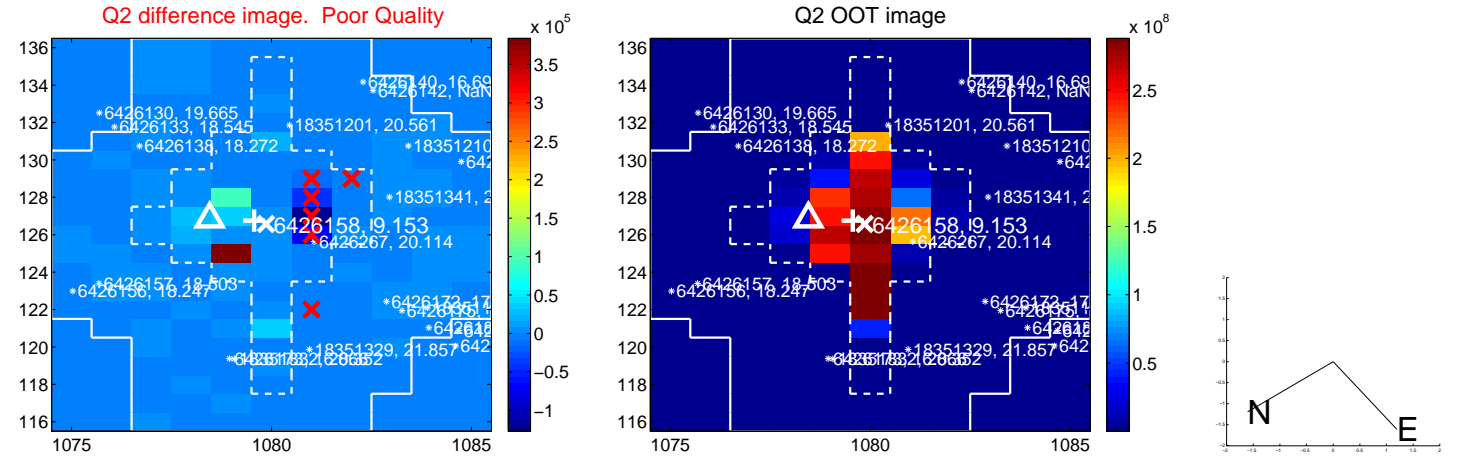
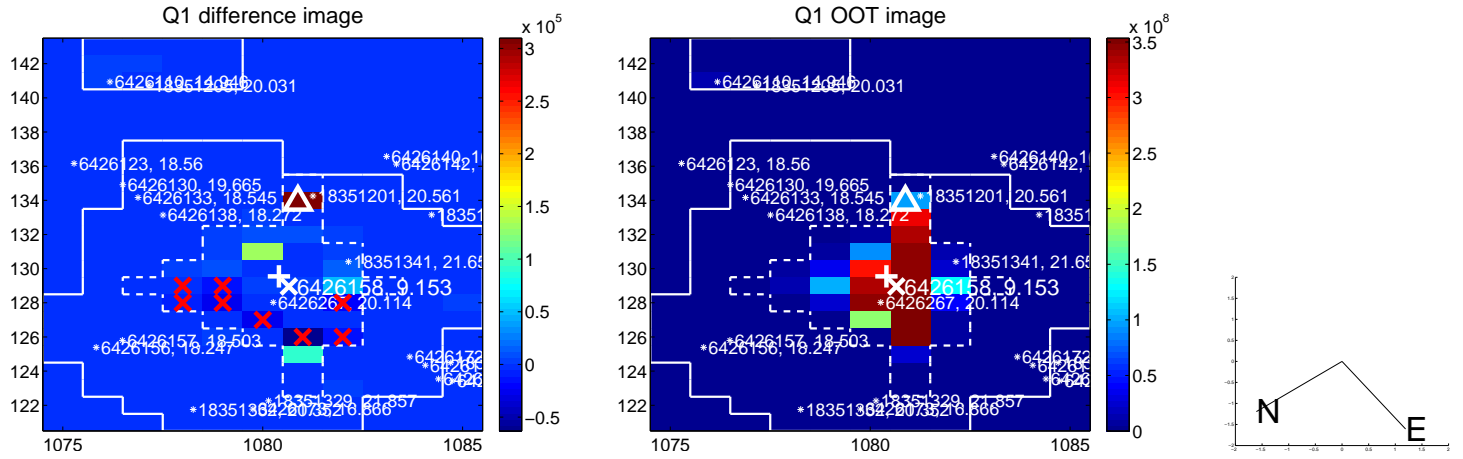
The direct PRF centroid is offset from the target star catalog position by about 1.35 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	15.385 ± 2.682	5.74	-12.185 ± 2.128	-9.393 ± 1.758
PRF-fit source offset from KIC position	15.175 ± 2.940	5.16	-12.044 ± 2.365	-9.231 ± 1.872
photometric centroid source offset	—	—	—	—

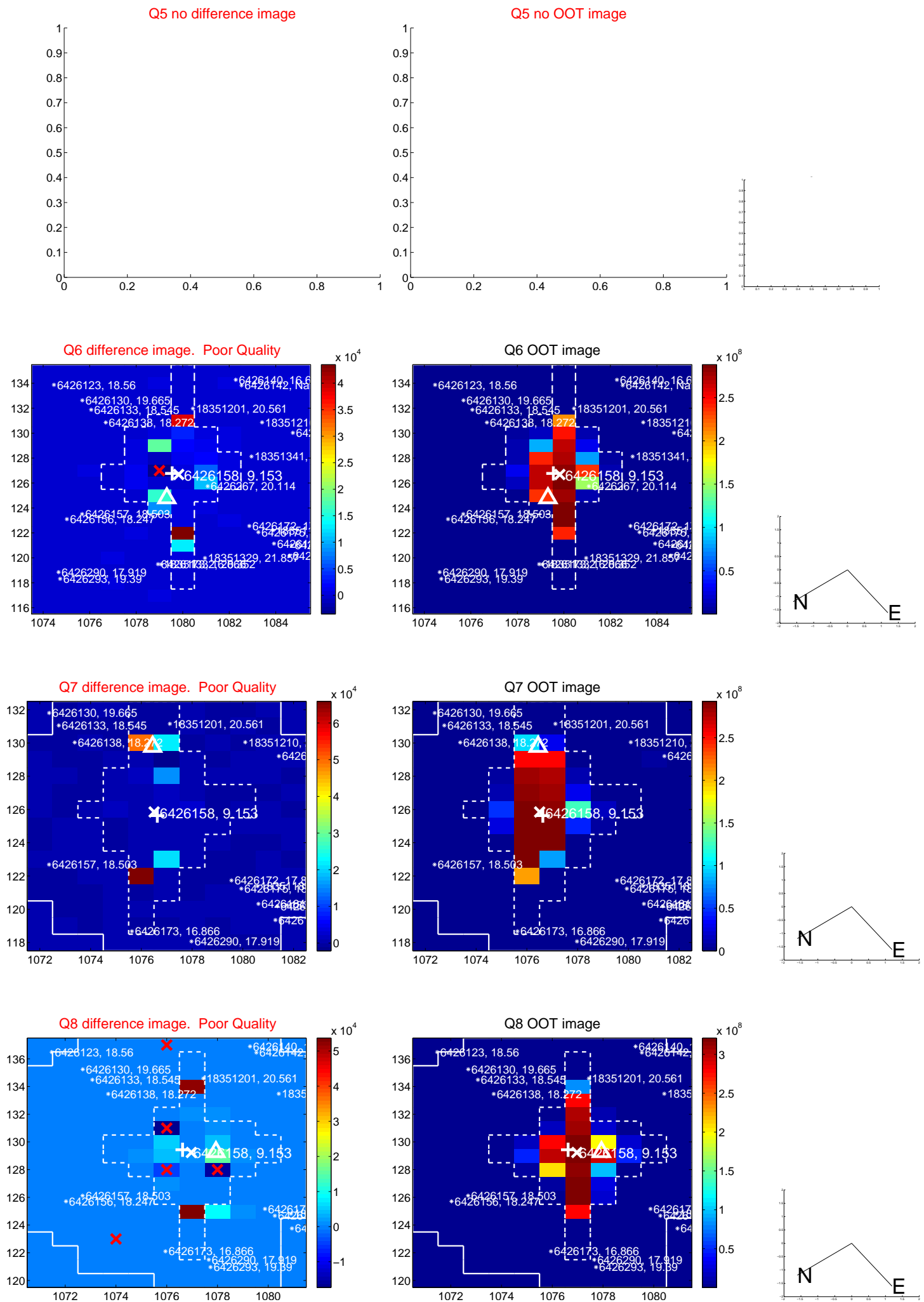


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

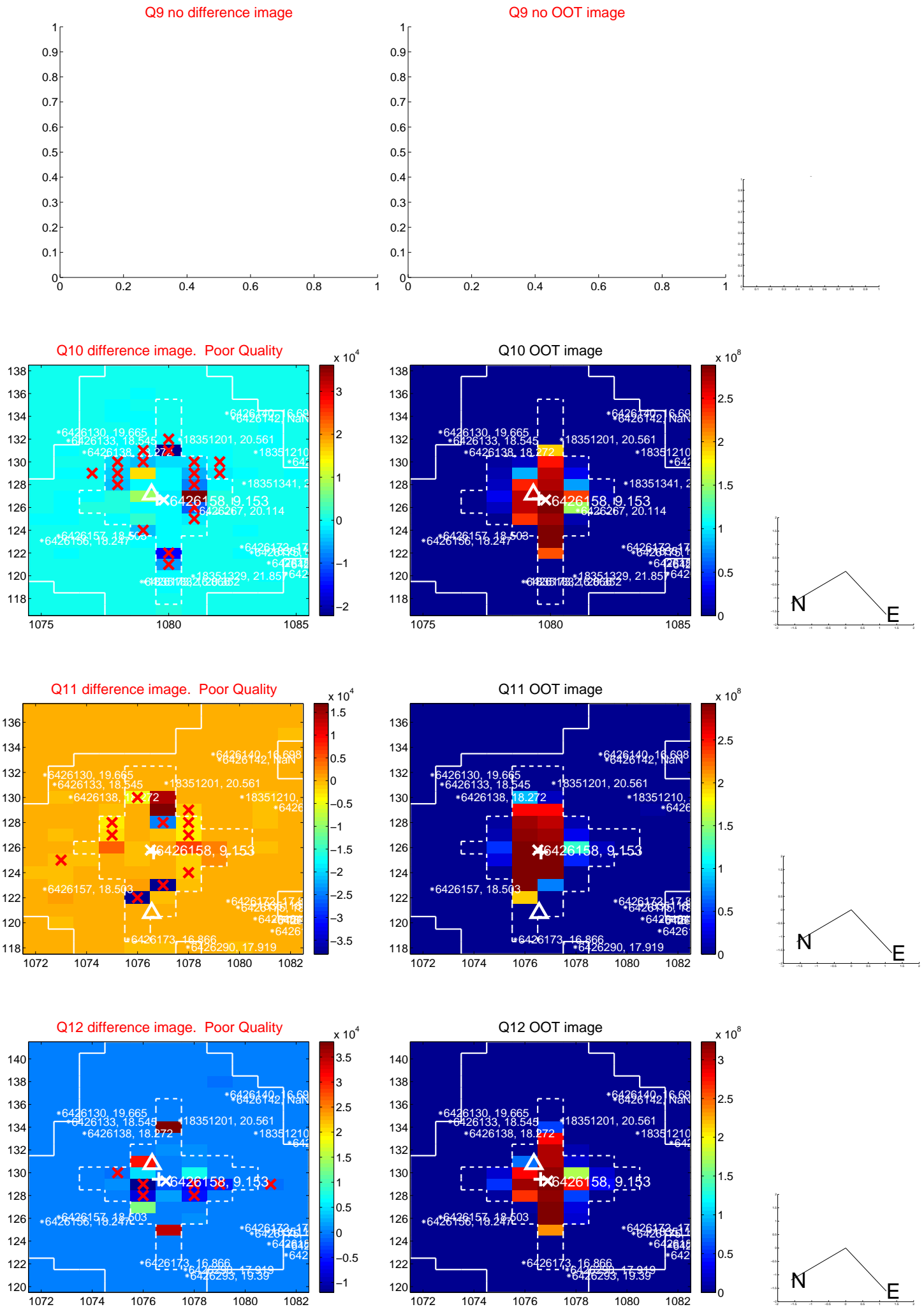
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



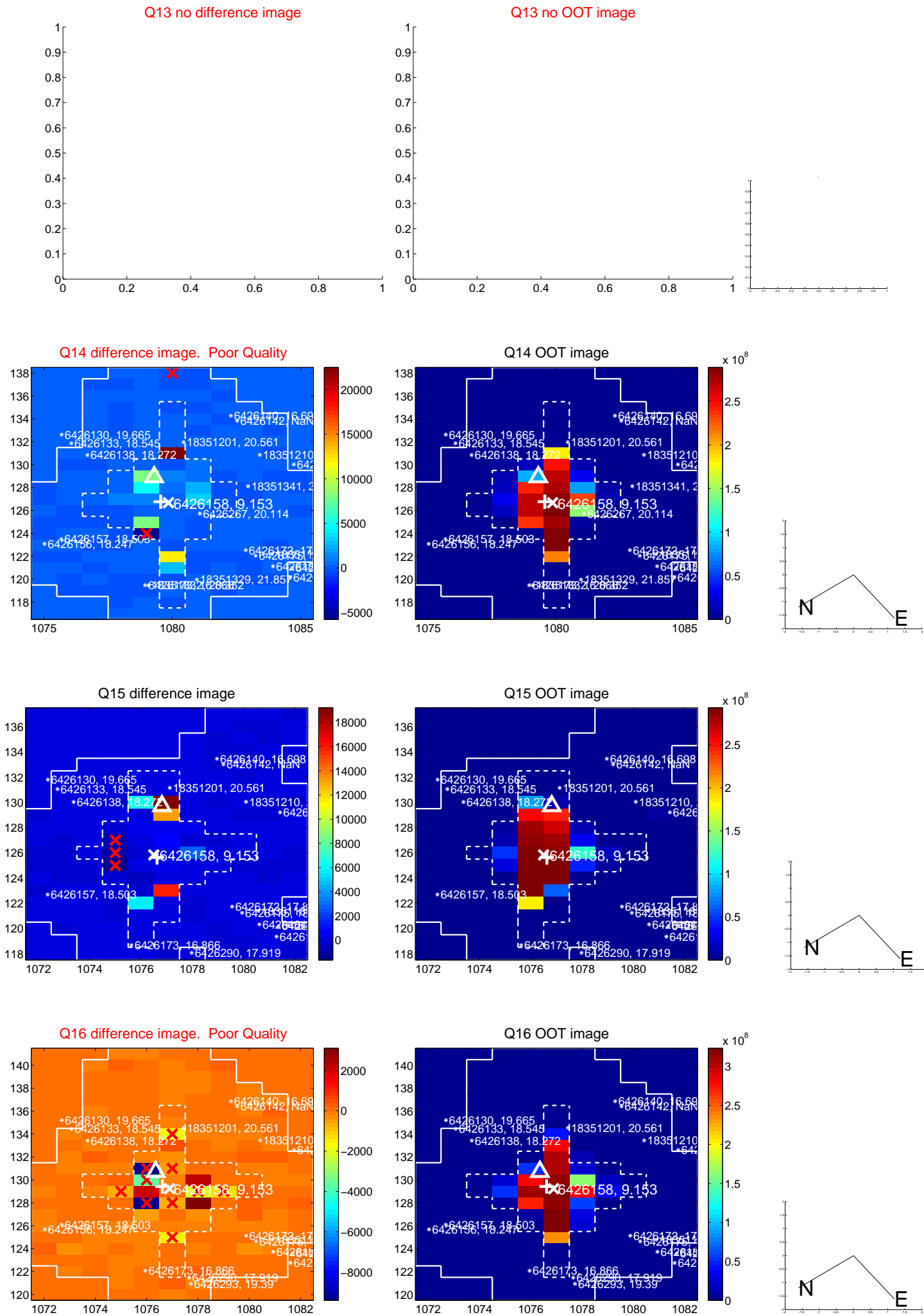
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



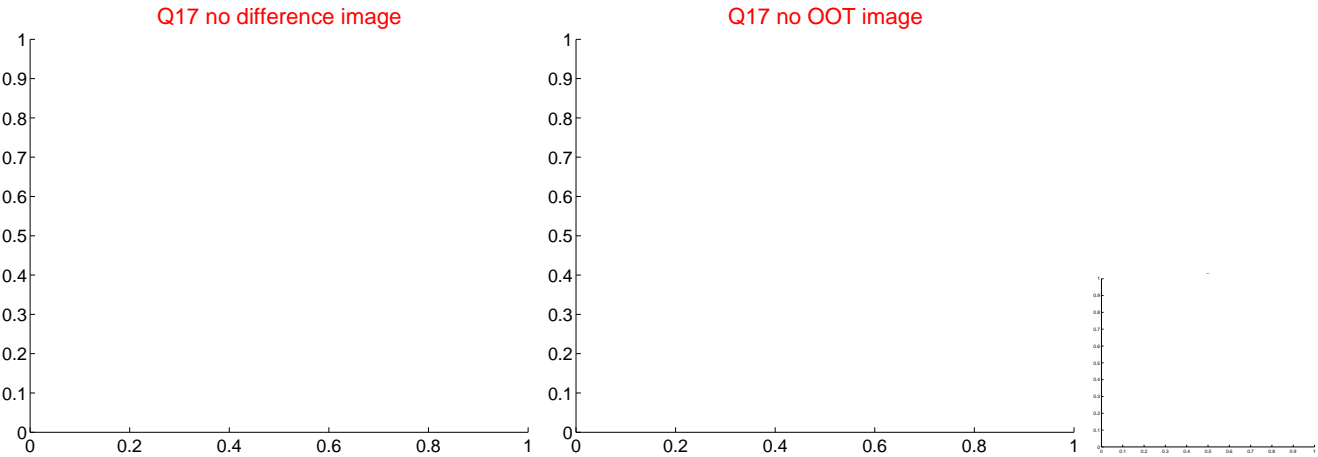
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

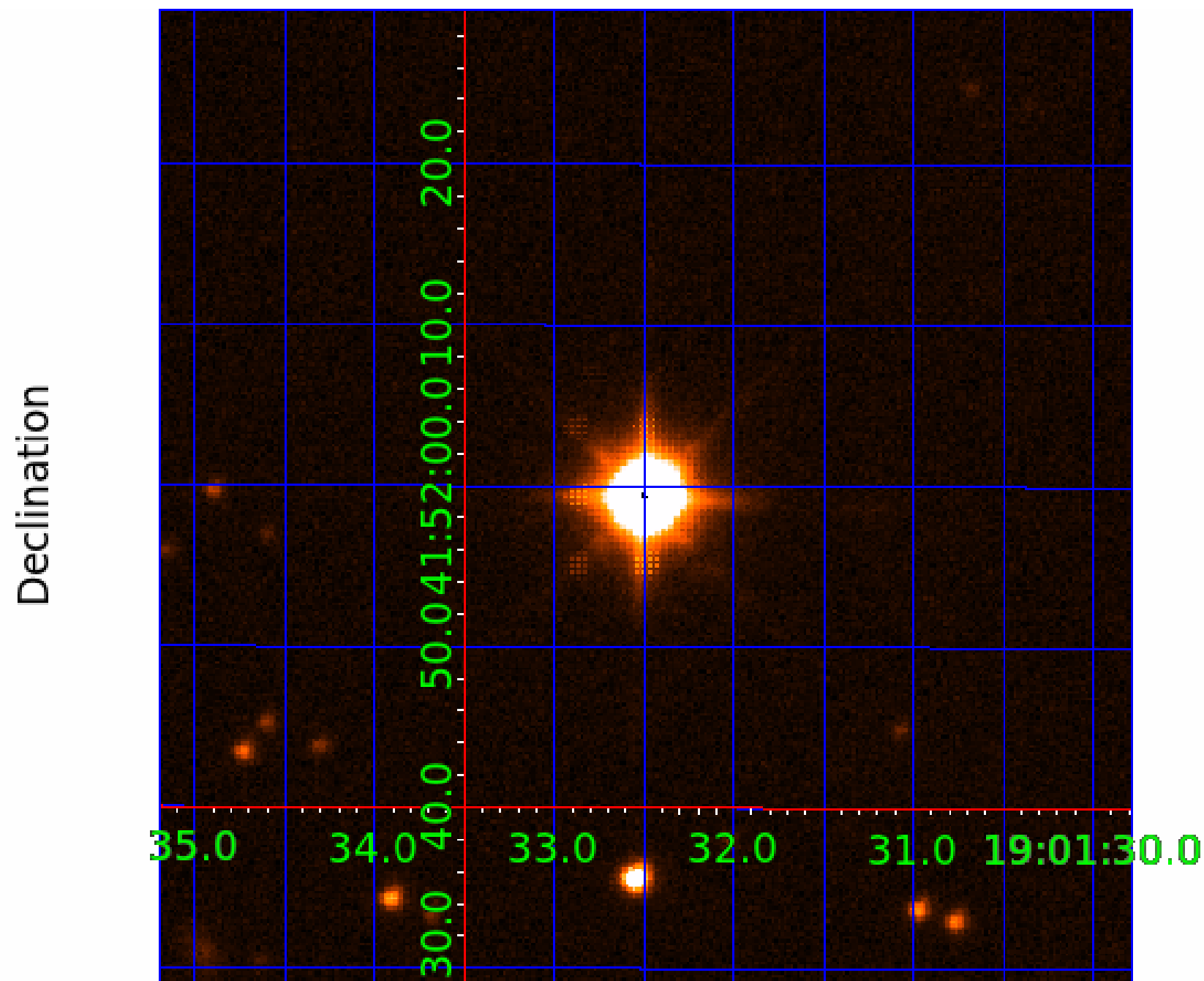


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image



KIC 006426158

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})
006426158-01	OBS	No	2.432733	132.264890	4.4	1.575	12.7	5.1	2.09	10155	0.51	18370.19
006426158-02	OBS	No	1.621833	131.733001	9.2	2.524	17.8	14.5	2.09	10155	0.73	31542.64
006426158-03	OBS	No	0.608342	132.002446	2.7	2.340	15.5	5.7	2.09	10155	0.37	116603.00
006426158-04	OBS	No	1.621822	132.255448	10.5	2.711	11.3	12.1	2.09	10155	0.75	31542.93
006426158-05	OBS	No	0.811832	132.267124	0.2	0.642	9.7	0.2	2.09	10155	0.10	79362.97

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006426158-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006426158-02	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
006426158-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006426158-04	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_SATURATED
006426158-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED

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

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

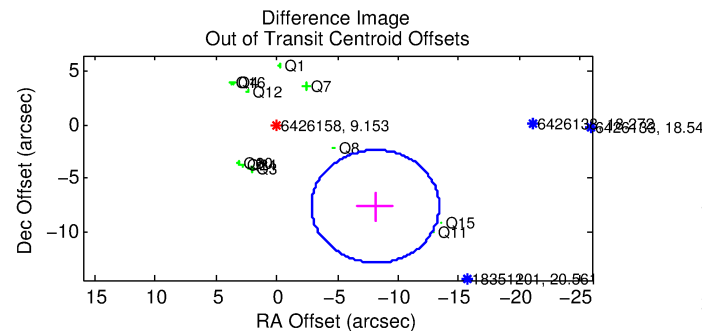
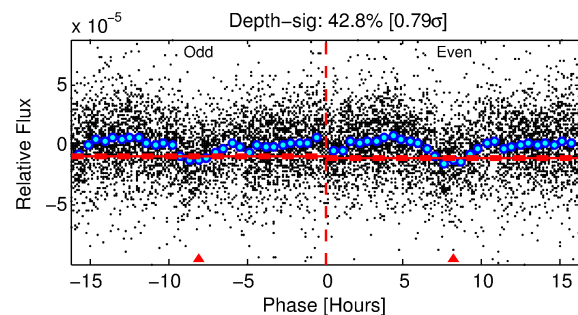
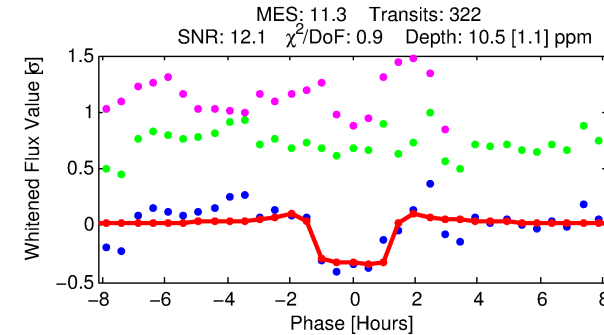
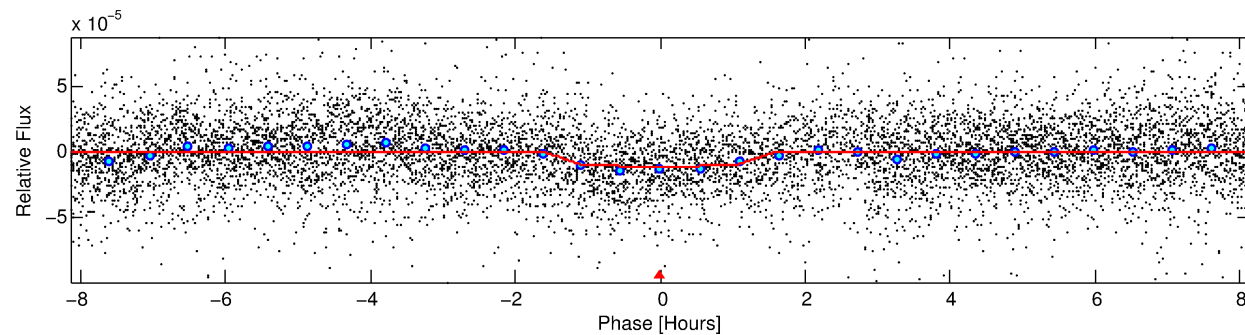
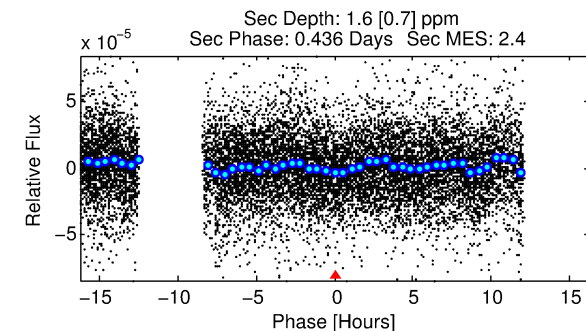
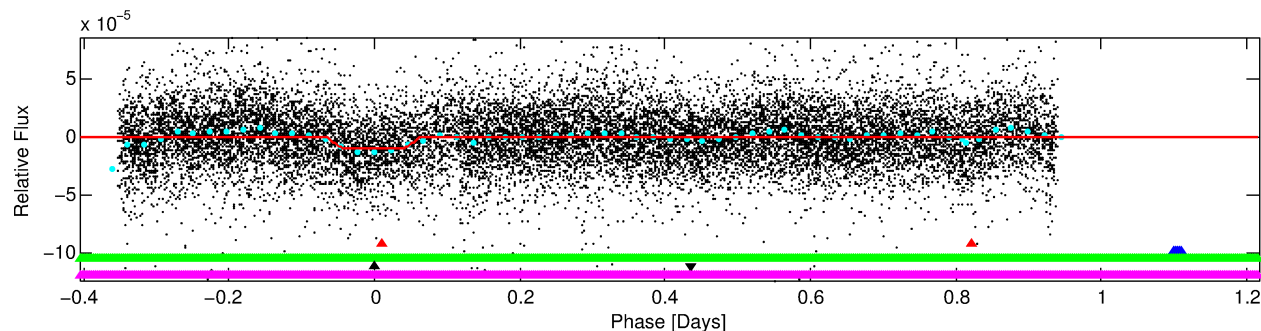
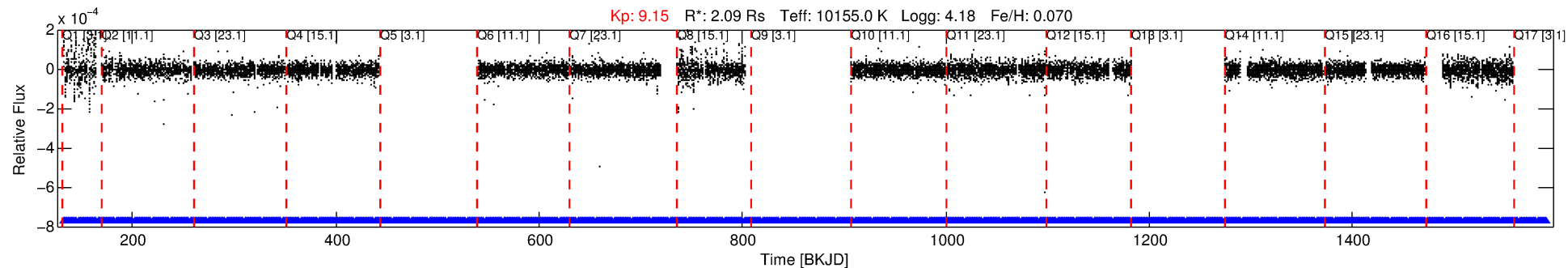
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006426158-04

No Significant Match Found

DV One-Page Summary

KIC: 6426158 Candidate: 4 of 5 Period: 1.622 d



DV Fit Results:

Period = 1.62182 [0.00001] d
Epoch = 132.2554 [0.0024] BKJD
Rp/R* = 0.0033 [0.0002]
b/R* = 2.71 [0.91]
b = 0.83 [0.14]
Seff = 31542.93 [17701.68]
Teq = 3398 [477] K
Rp = 0.75 [0.36] Re
a = 0.0363 [0.0140] AU
Ag = 2.05 [1.47] [0.71σ]
Teffp = 6283 [803] K [3.09σ]

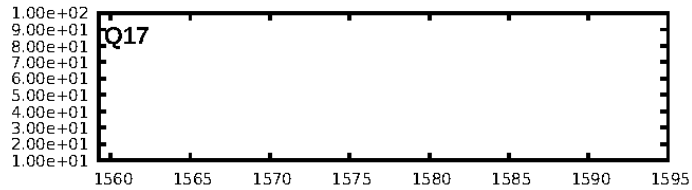
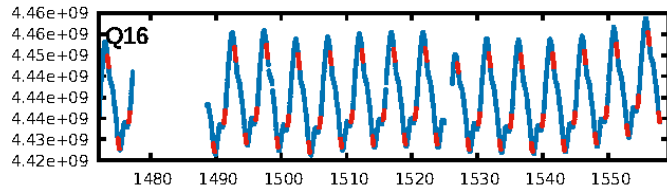
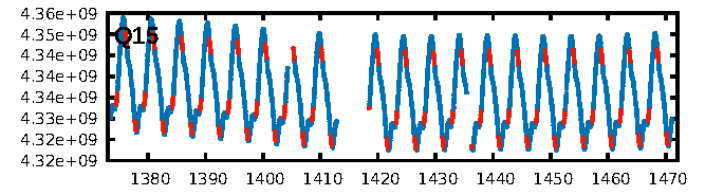
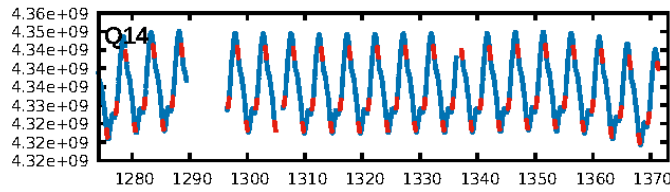
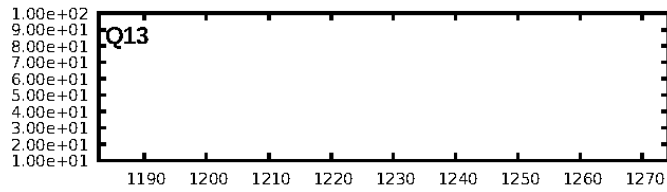
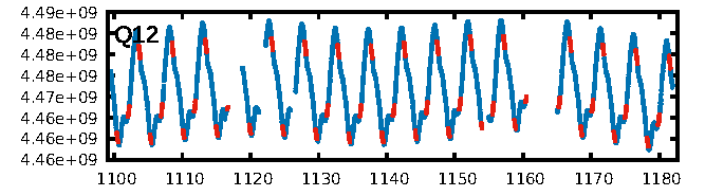
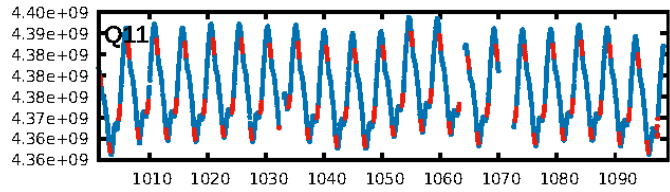
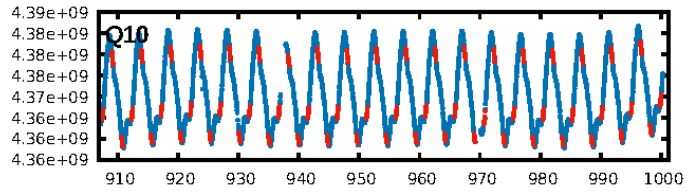
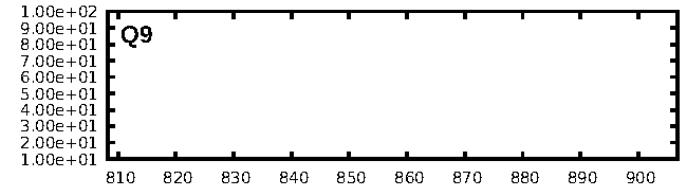
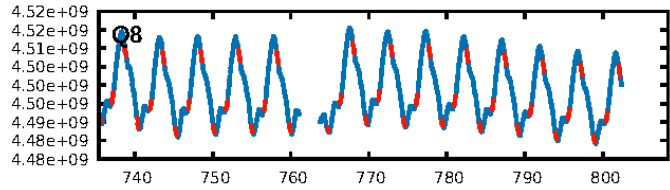
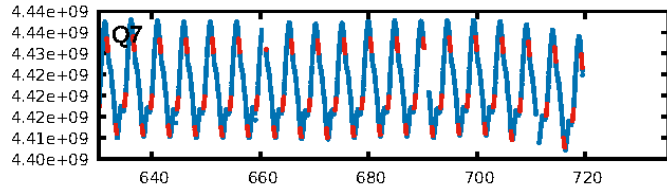
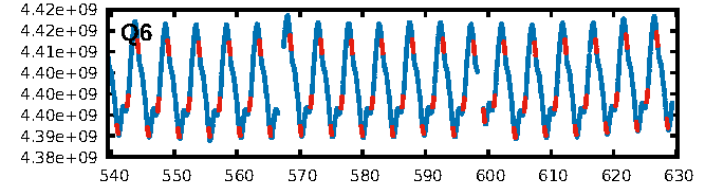
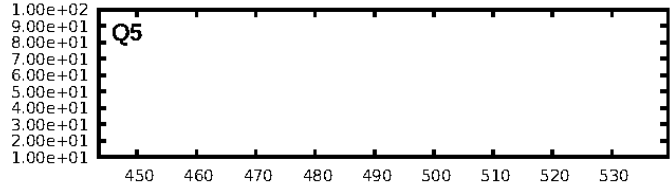
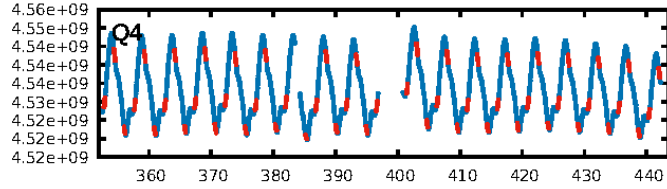
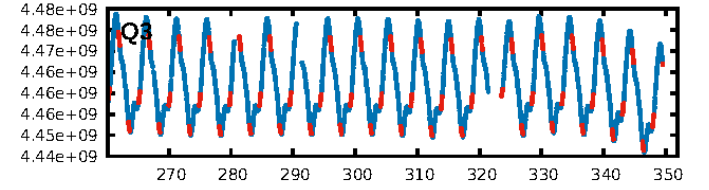
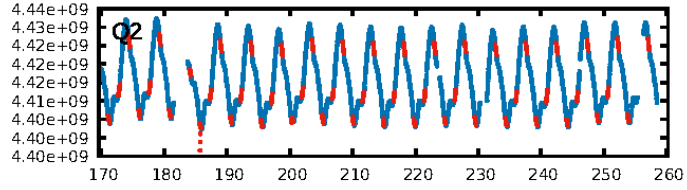
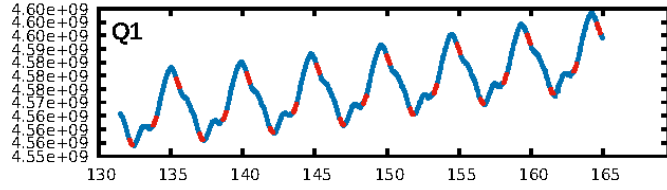
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [6.98σ]
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [315/315]
GhostDiagnostic-chr: N/A
Centroid-sig: 36.6%
Centroid-so: 1.256 arcsec [0.87σ]
OotOffset-rm: 11.144 arcsec [6.35σ]
KicOffset-rm: 11.083 arcsec [6.09σ]
OotOffset-st: 4/4/4/1 [13]
KicOffset-st: 4/4/4/1 [13]
DiffImageQuality-fgm: 0.00 [0/13]
DiffImageOverlap-fno: 0.00 [0/13]

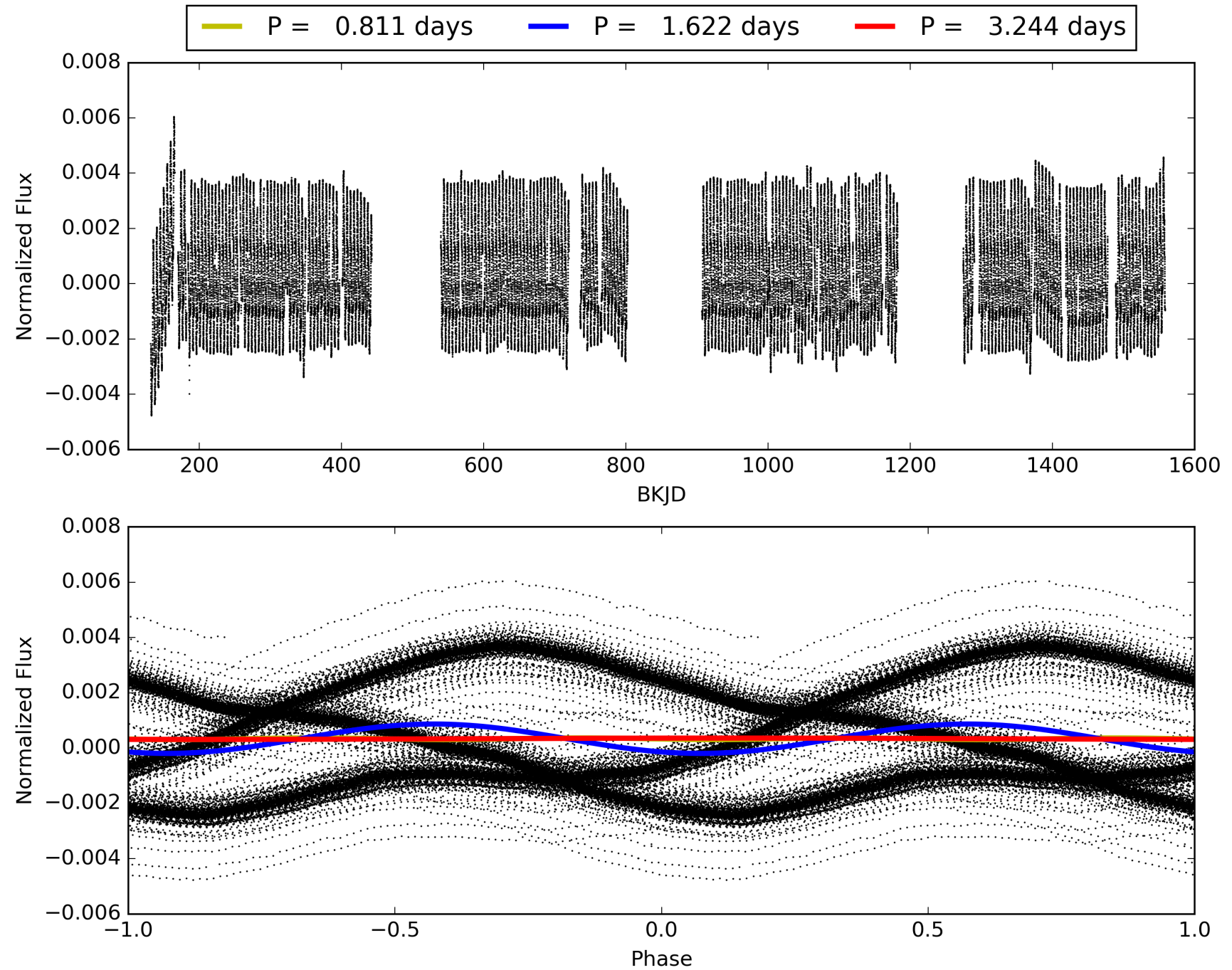
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 07:25:45 Z

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

TCE 006426158-04, PDC Light Curves

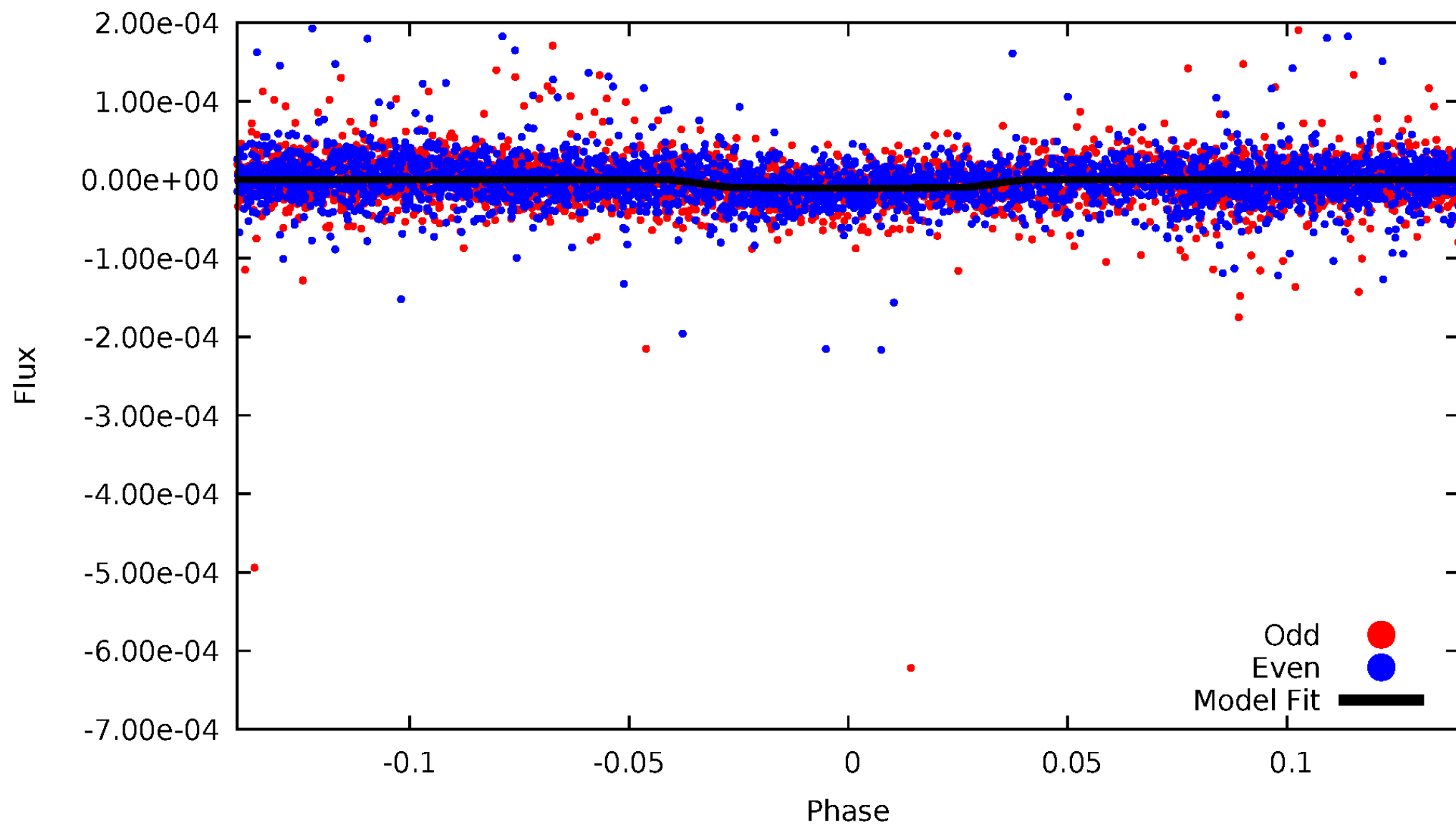


TCE 006426158-04



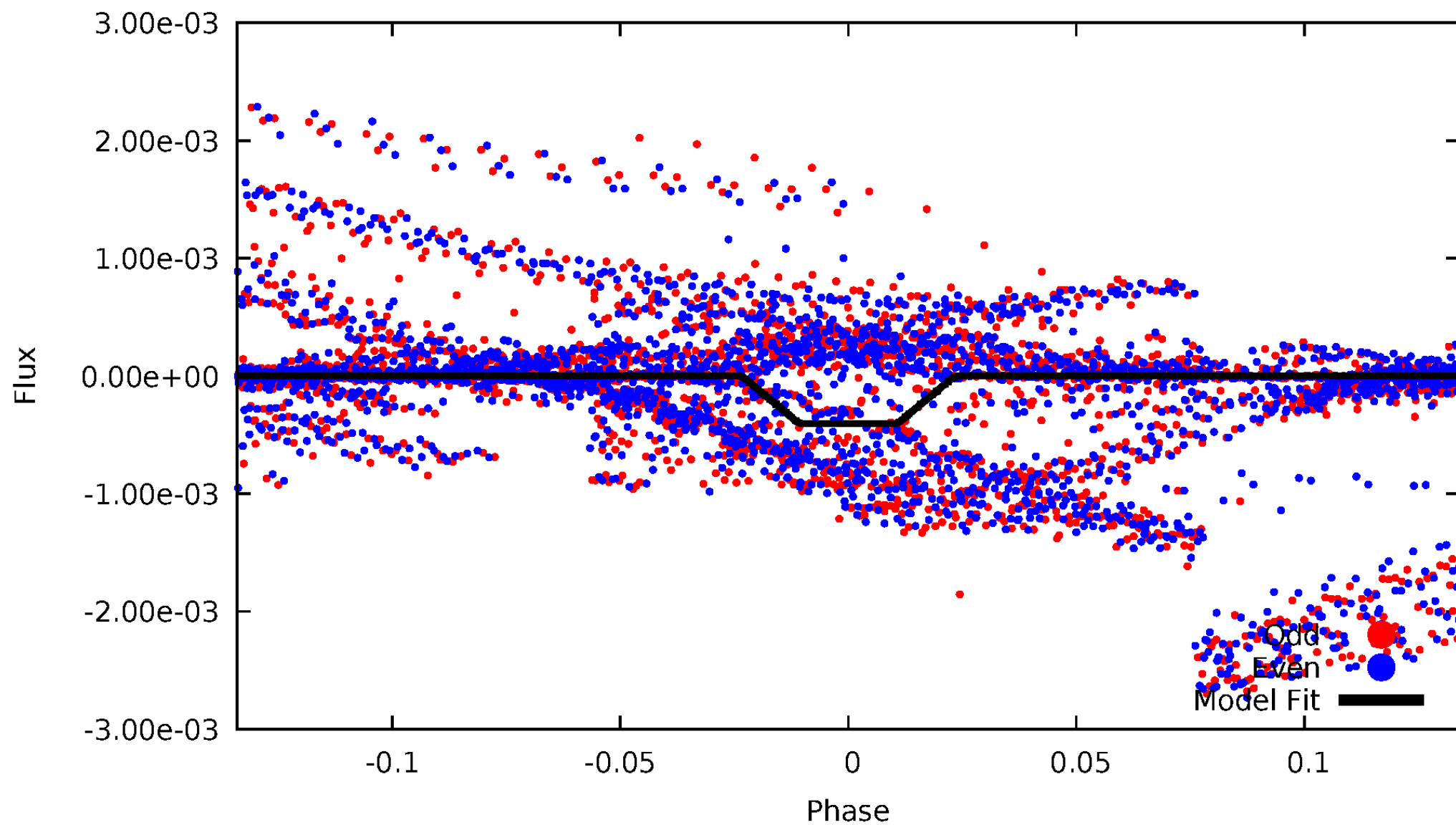
DV Odd/Even

TCE 006426158-04



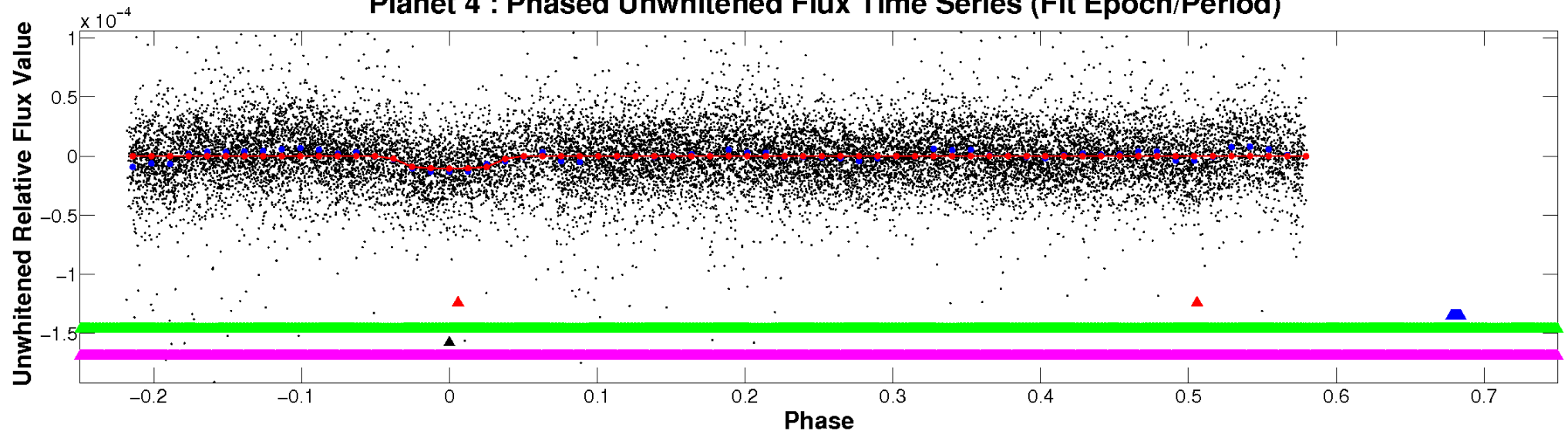
ALT Odd/Even

TCE 006426158-04

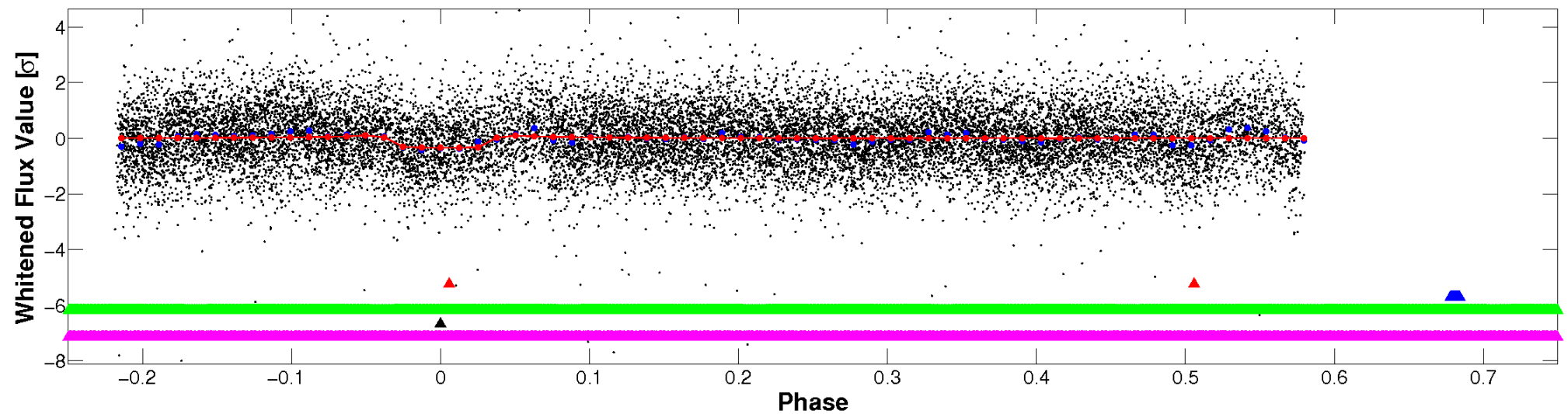


Non-Whitened Vs. Whitened Light Curve

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

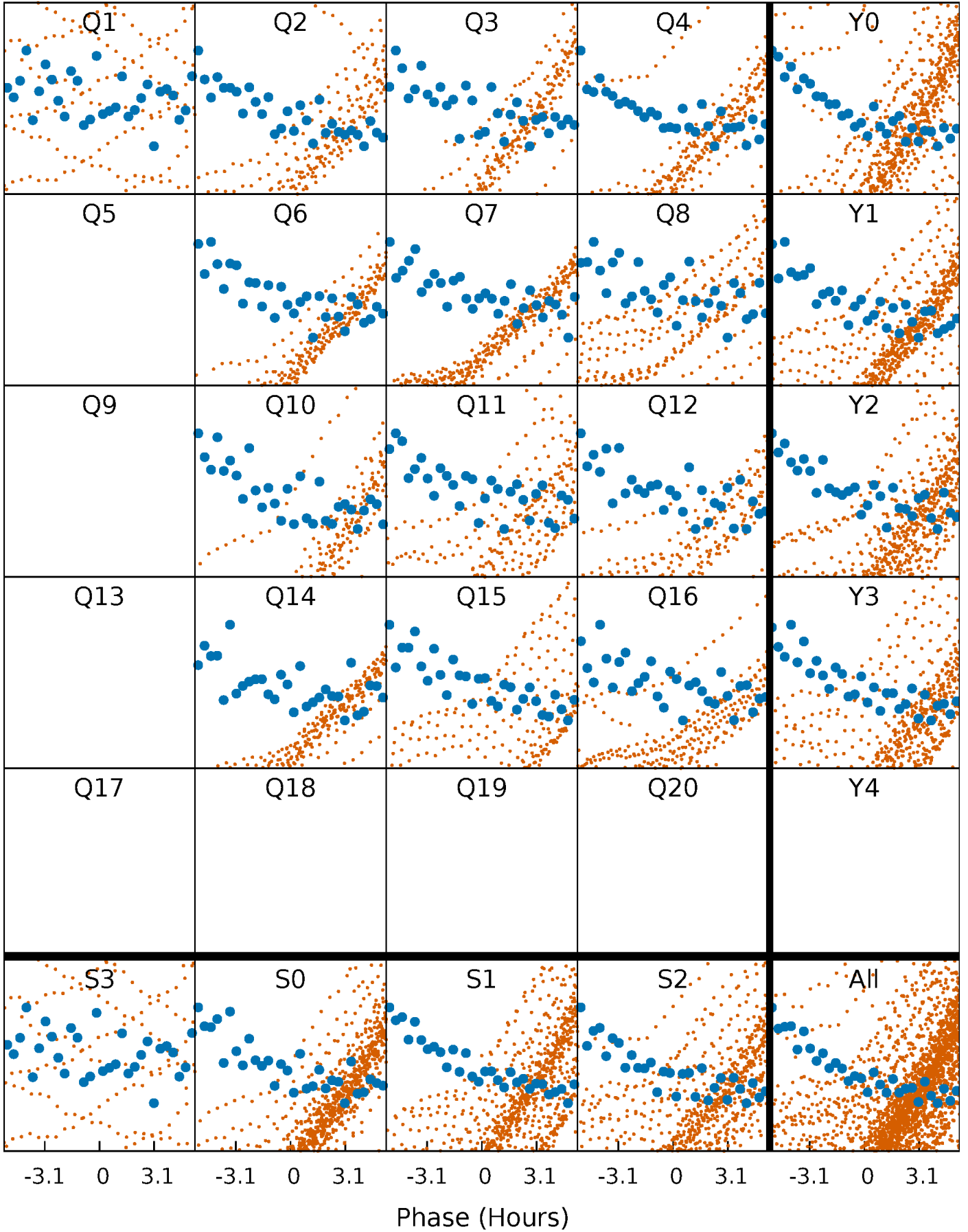


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



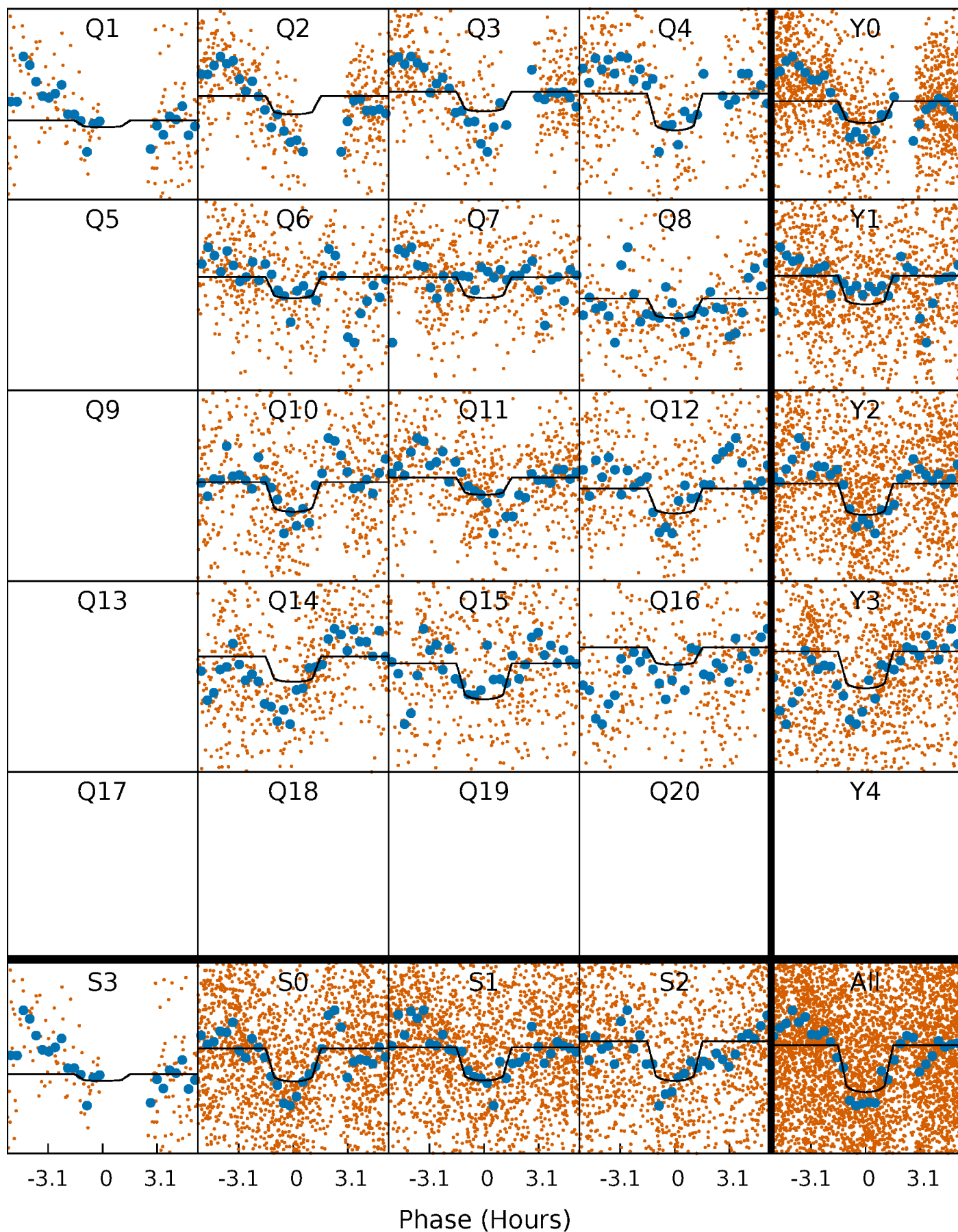
PDC Quarter-Phased Transit Curves

TCE 006426158-04 P= 1.621822 Days $T_0=132.255448$ (BKJD)



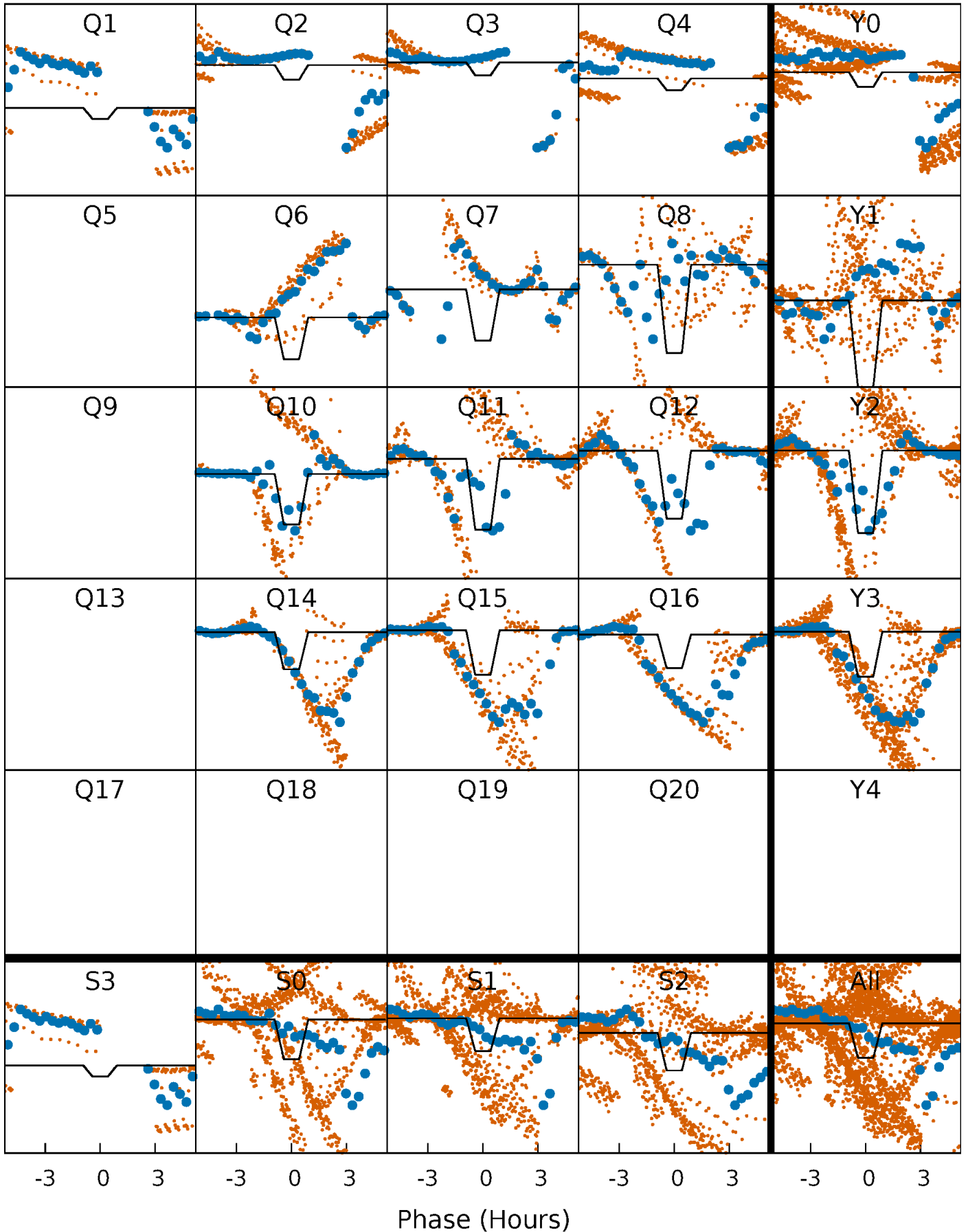
DV Quarter-Phased Transit Curves

TCE 006426158-04 P= 1.621822 Days $T_0=132.255448$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

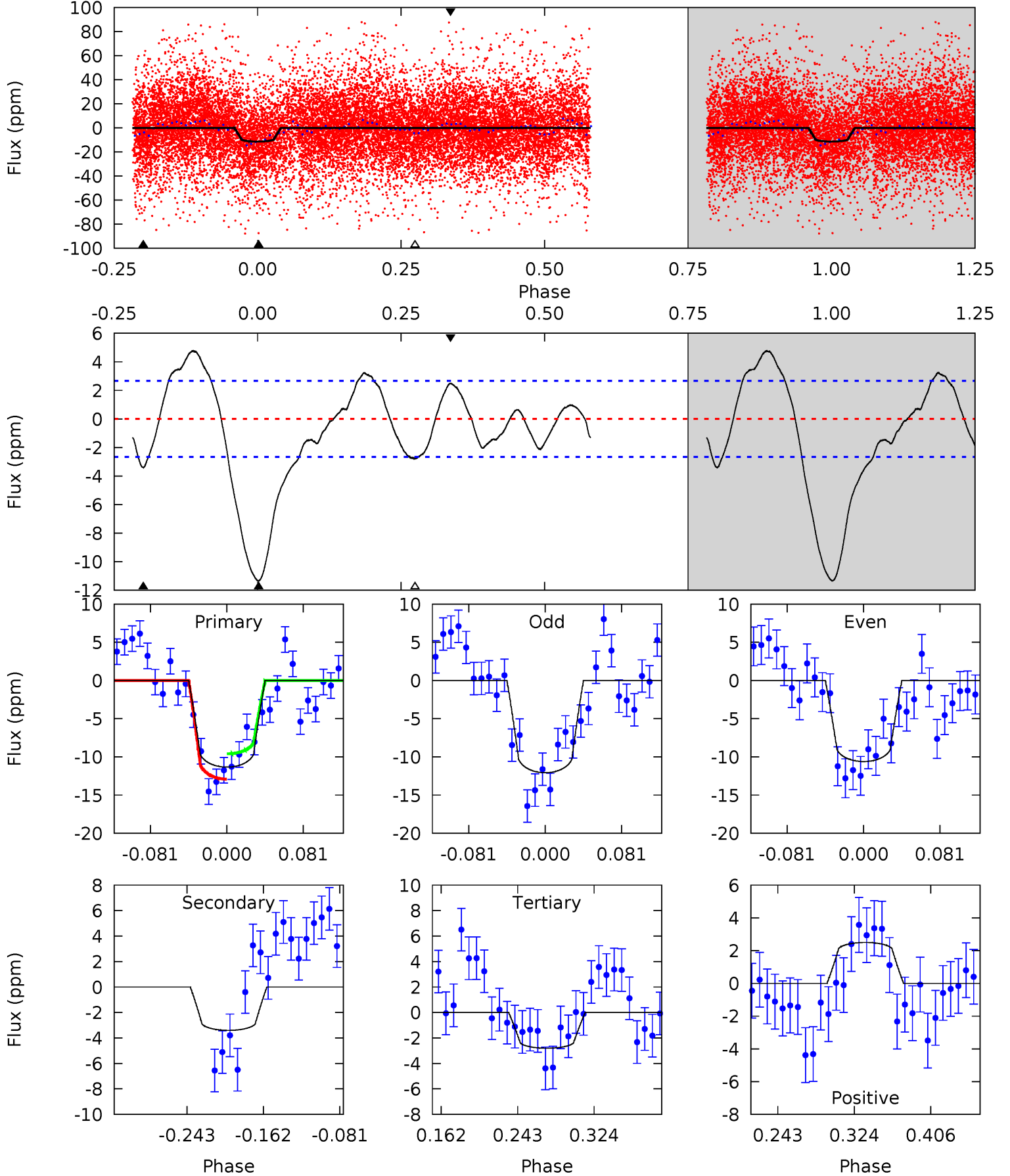
TCE 006426158-04 P= 1.621801 Days $T_0=132.251637$ (BKJD)



DV Model-Shift Uniqueness Test

006426158-04, P = 1.621822 Days, E = 130.633626 Days

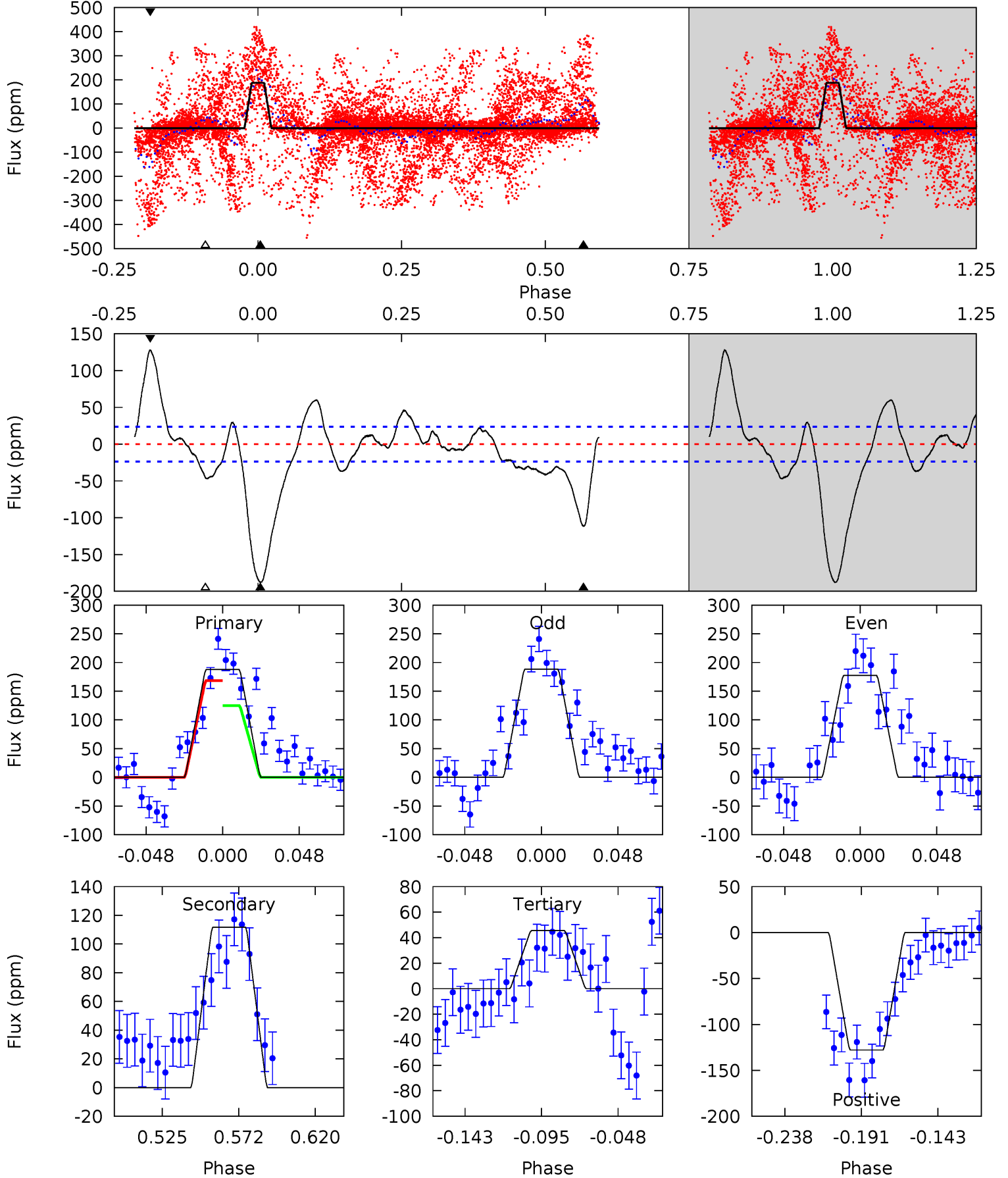
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.6	5.88	4.85	4.32	4.61	1.74	3.29	14.8	15.3	1.03	1.56	1.26	1.04	0.30	2.82



Alt Model-Shift Uniqueness Test

006426158-04, P = 1.621801 Days, E = 130.629836 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
37.4	22.3	9.07	25.5	4.72	1.98	6.25	28.4	12.0	13.2	-3.22	1.10	-0.70	0.40	3.69



Stellar Parameters For KIC 006426158

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	10155^{+286}_{-429}	$4.183^{+0.151}_{-0.280}$	$0.070^{+0.150}_{-0.550}$	$2.089^{+0.999}_{-0.538}$	$2.426^{+0.481}_{-0.481}$	$0.375^{+0.356}_{-0.238}$
	+3%/-4%	+4%/-7%	+214%/-786%	+48%/-26%	+20%/-20%	+95%/-64%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 006426158-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-3 ± 1	$0.78^{+0.20}_{-0.13}$	4830^{+505}_{-402}	6807^{+484}_{-495}	$3.926^{+1.808}_{-1.446}$
Alt.	-112 ± 5	$4.68^{+1.31}_{-0.64}$	4810^{+573}_{-391}	6590^{+187}_{-227}	$3.613^{+1.254}_{-1.313}$

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

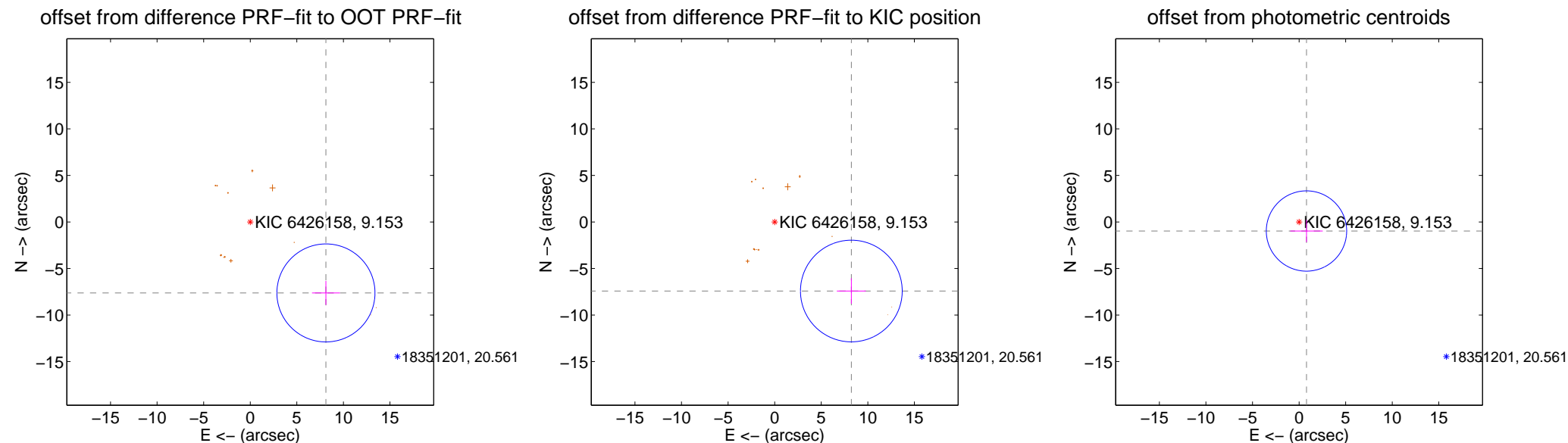
DV Centroid Data

Supplemental centroid analysis for 006426158-04. **Kepler magnitude: 9.15.** Transit SNR 12.07

There are 0 quarters with good PRF difference image offsets

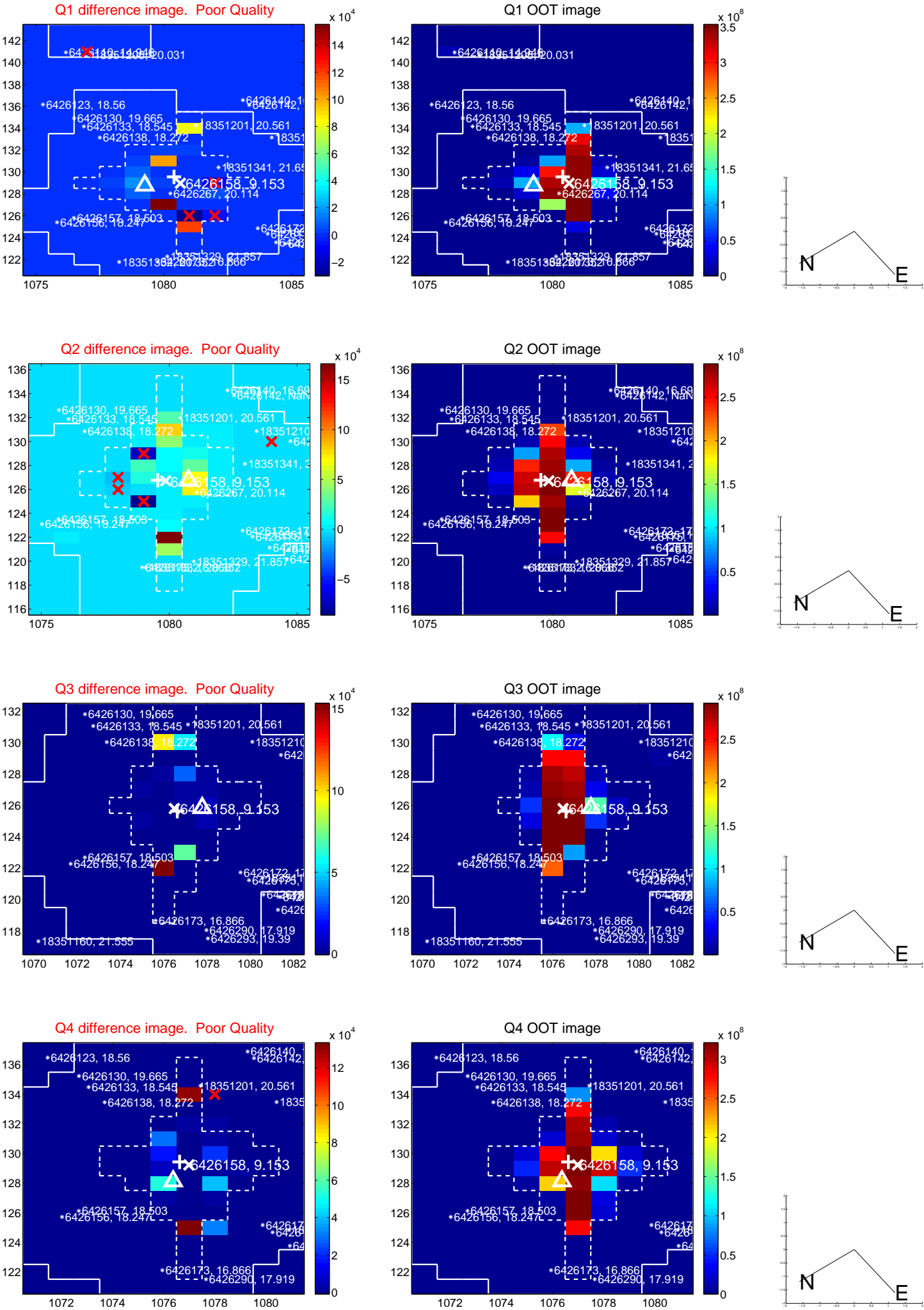
The direct PRF centroid is offset from the target star catalog position by about 1.34 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	11.144 ± 1.755	6.35	-8.126 ± 1.493	-7.626 ± 1.284
PRF-fit source offset from KIC position	11.083 ± 1.821	6.09	-8.232 ± 1.558	-7.421 ± 1.364
photometric centroid source offset	1.26 ± 1.44	0.87	-0.79 ± 1.74	-0.97 ± 1.19

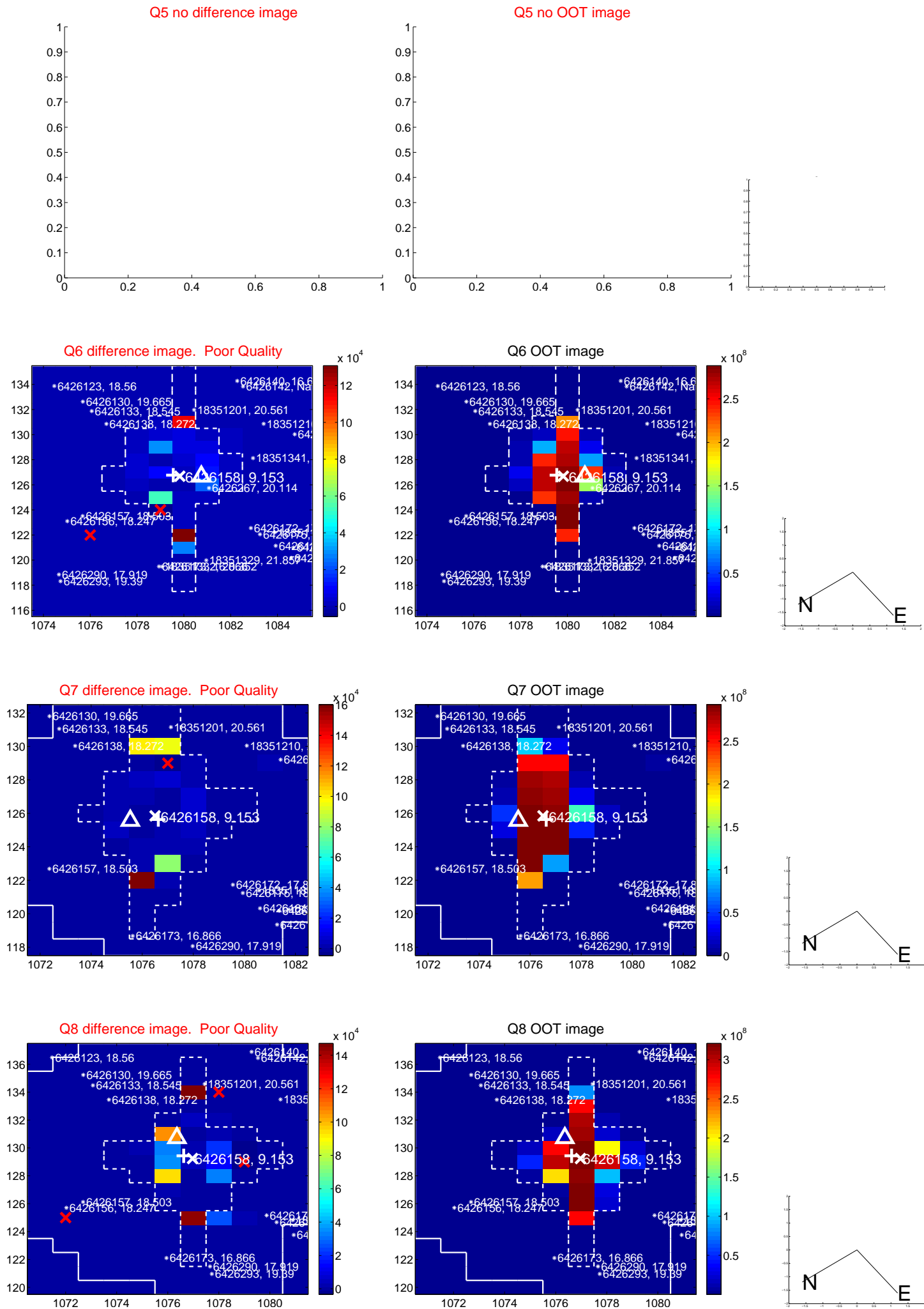


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

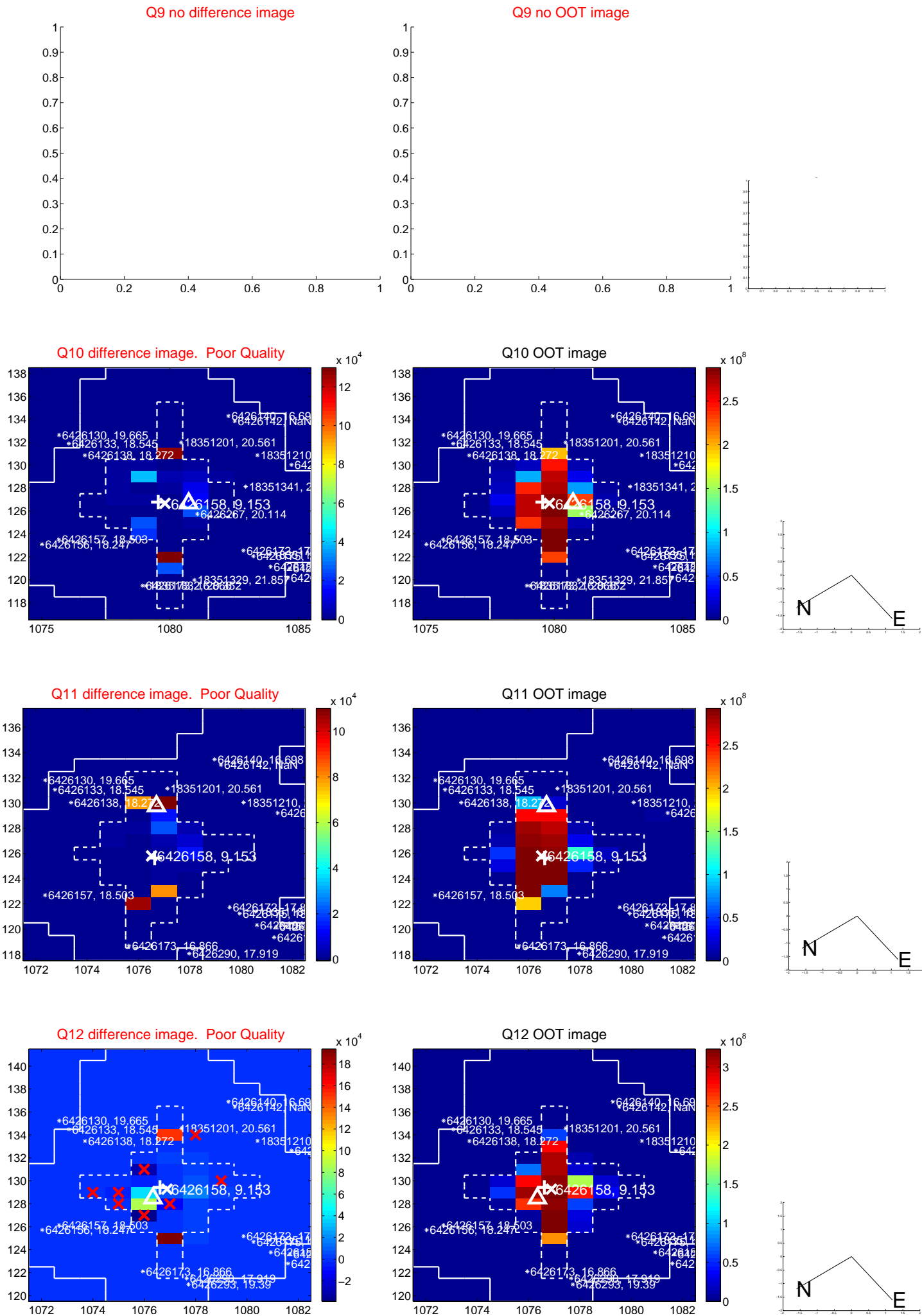
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



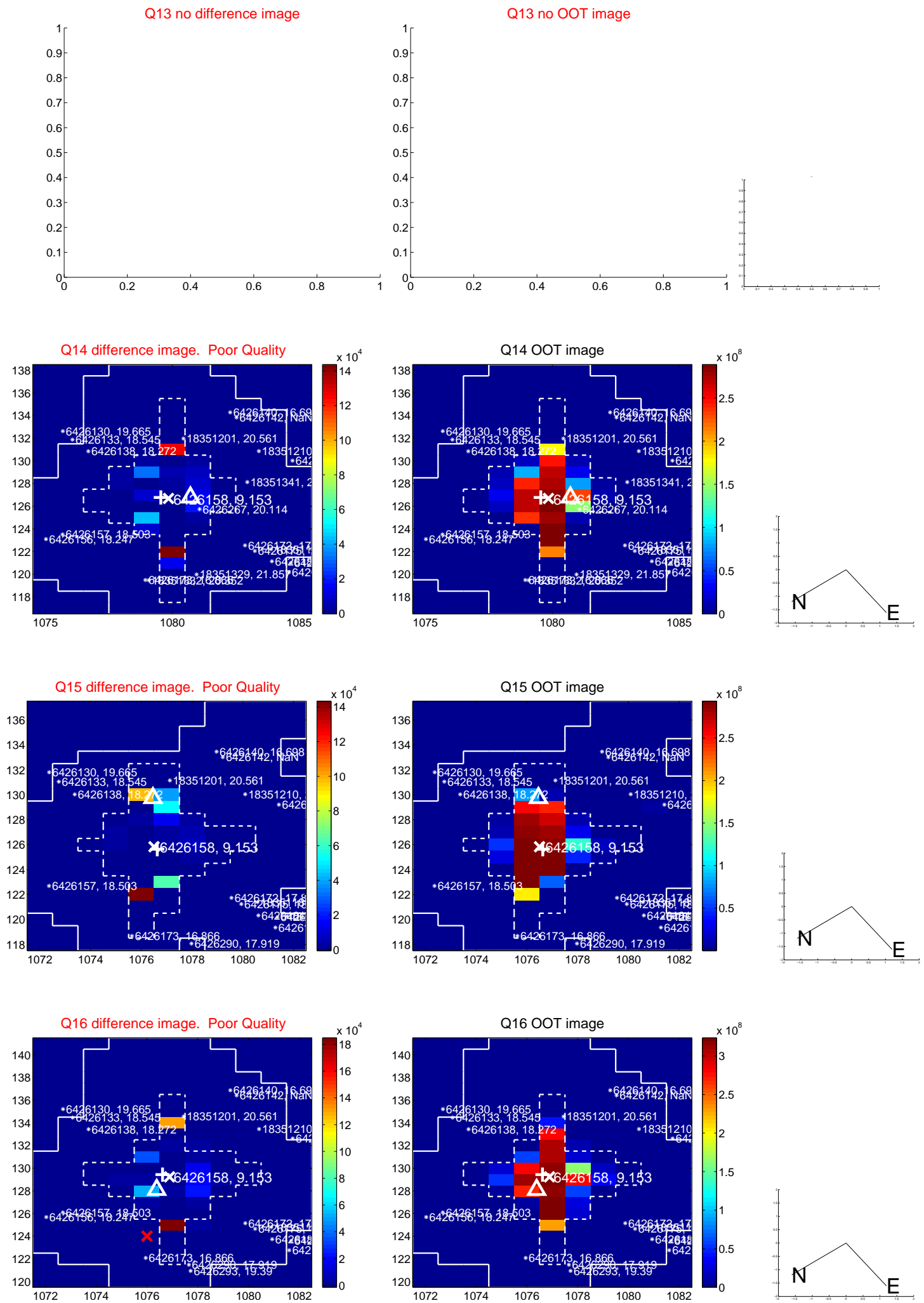
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



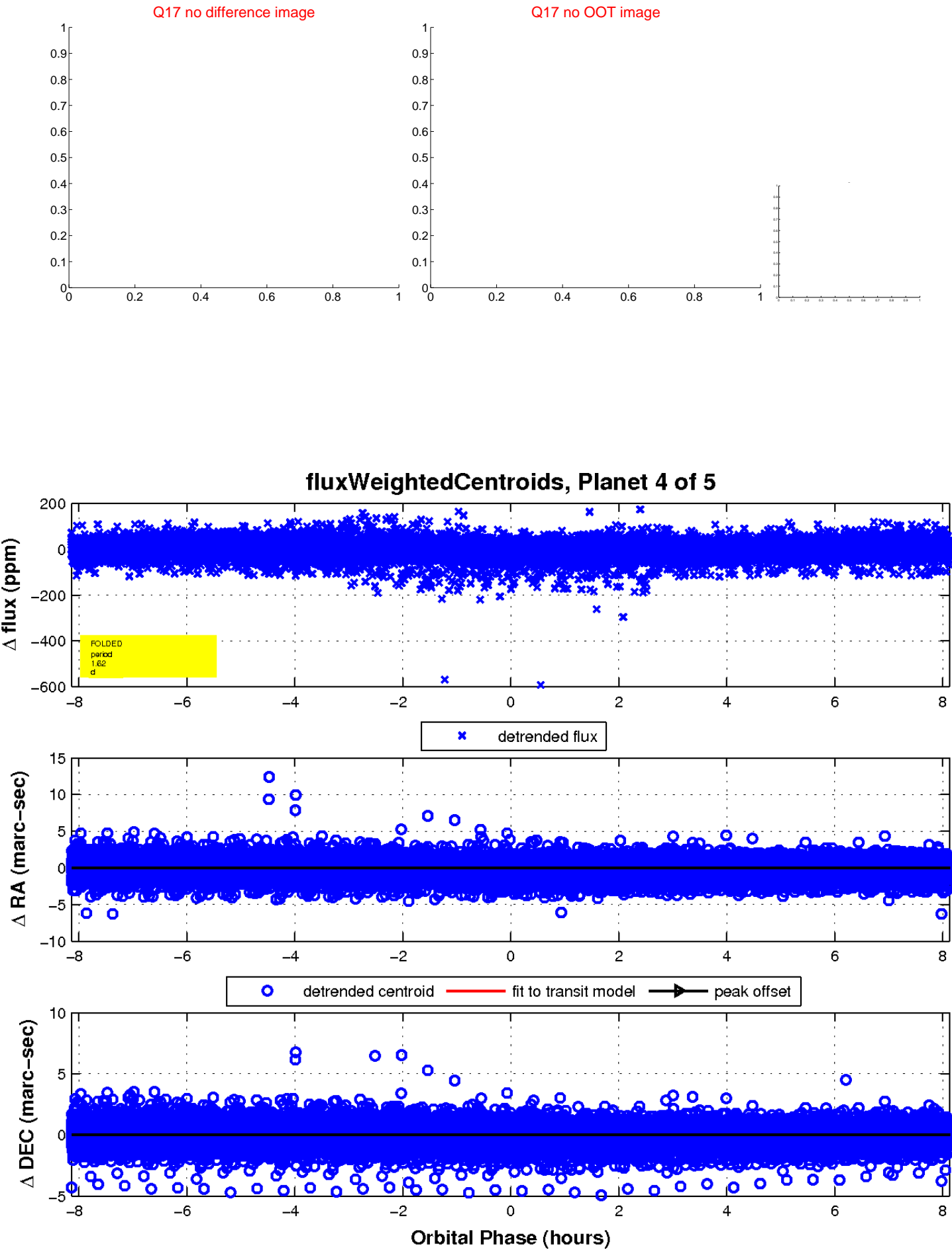
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

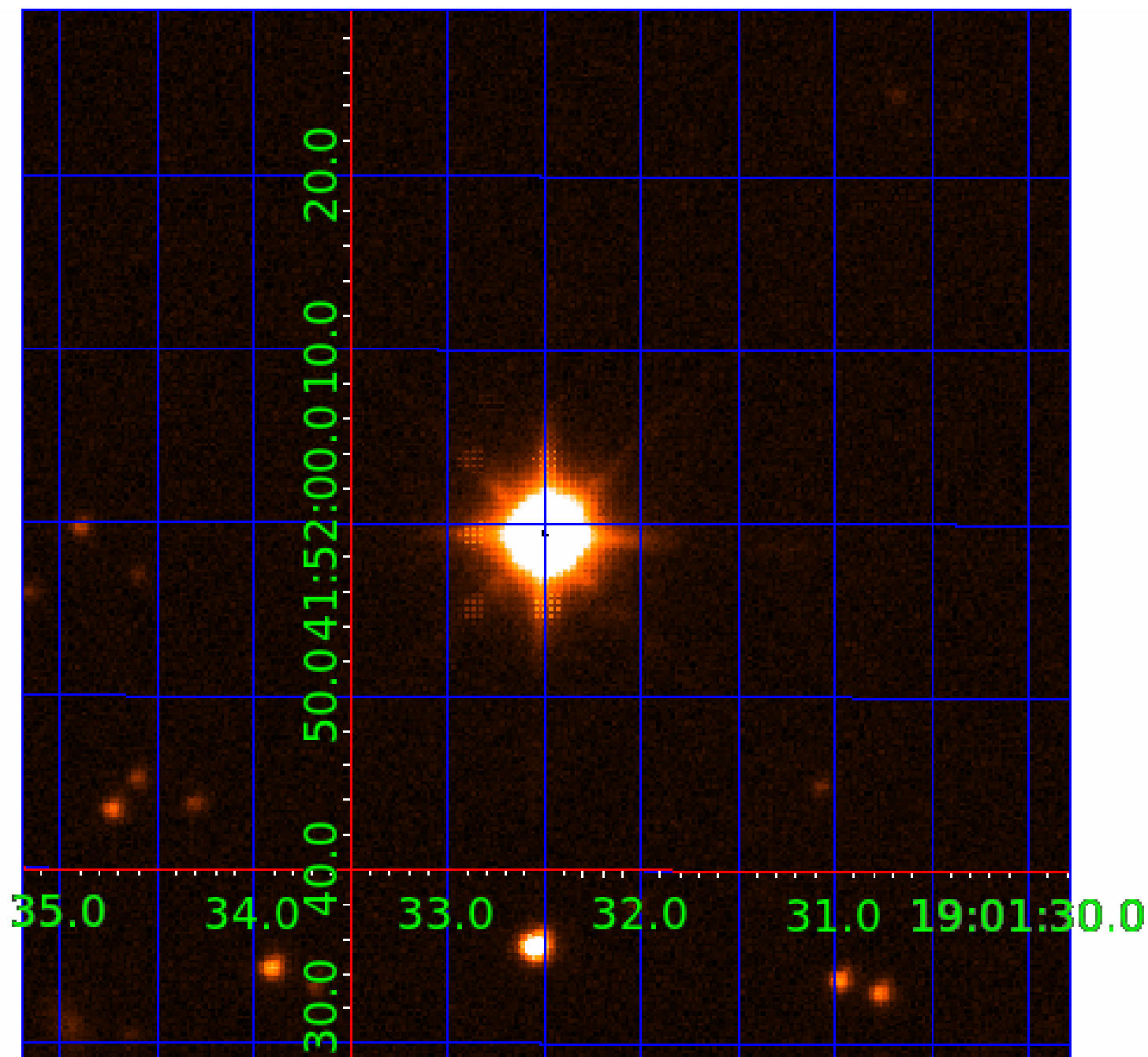


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006426158

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})
006426158-01	OBS	No	2.432733	132.264890	4.4	1.575	12.7	5.1	2.09	10155	0.51	18370.19
006426158-02	OBS	No	1.621833	131.733001	9.2	2.524	17.8	14.5	2.09	10155	0.73	31542.64
006426158-03	OBS	No	0.608342	132.002446	2.7	2.340	15.5	5.7	2.09	10155	0.37	116603.00
006426158-04	OBS	No	1.621822	132.255448	10.5	2.711	11.3	12.1	2.09	10155	0.75	31542.93
006426158-05	OBS	No	0.811832	132.267124	0.2	0.642	9.7	0.2	2.09	10155	0.10	79362.97

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006426158-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006426158-02	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
006426158-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006426158-04	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_SATURATED
006426158-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED

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

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

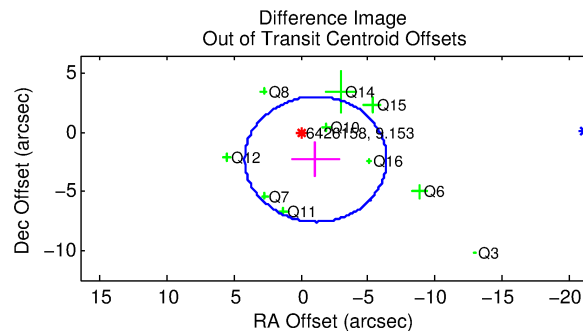
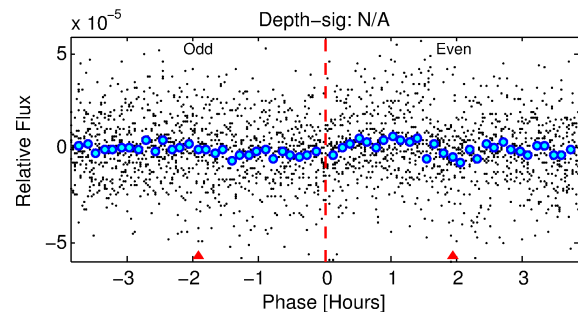
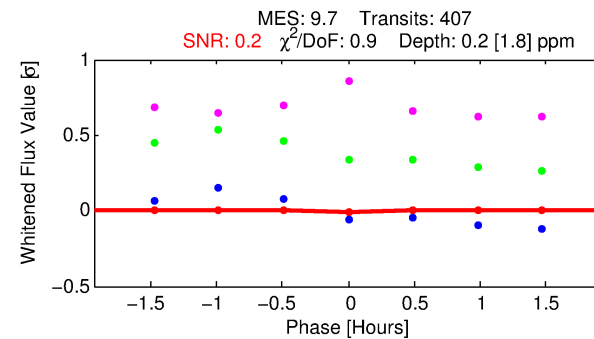
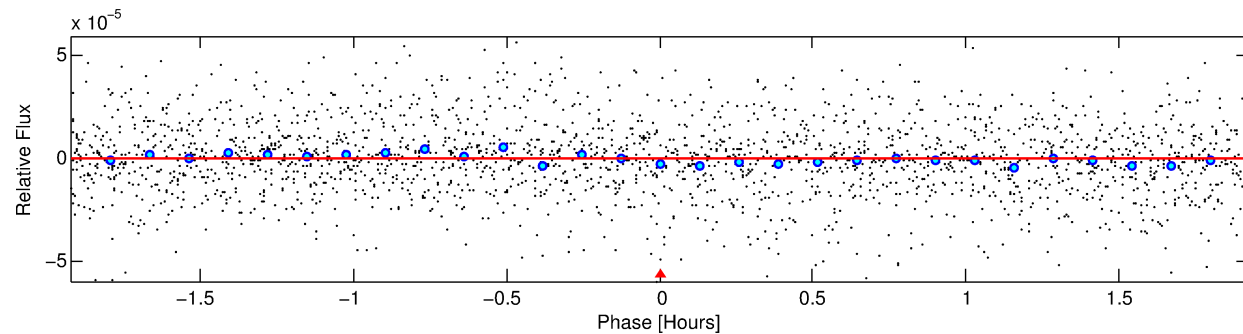
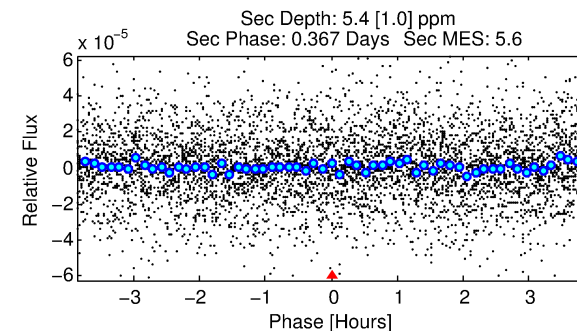
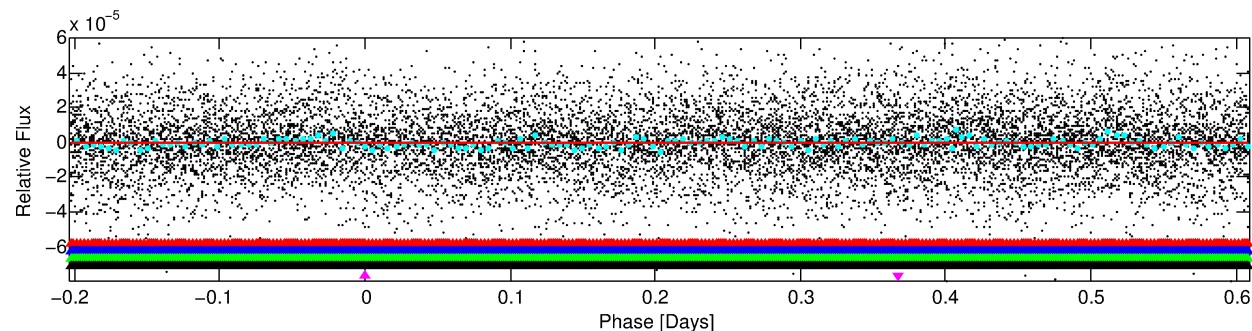
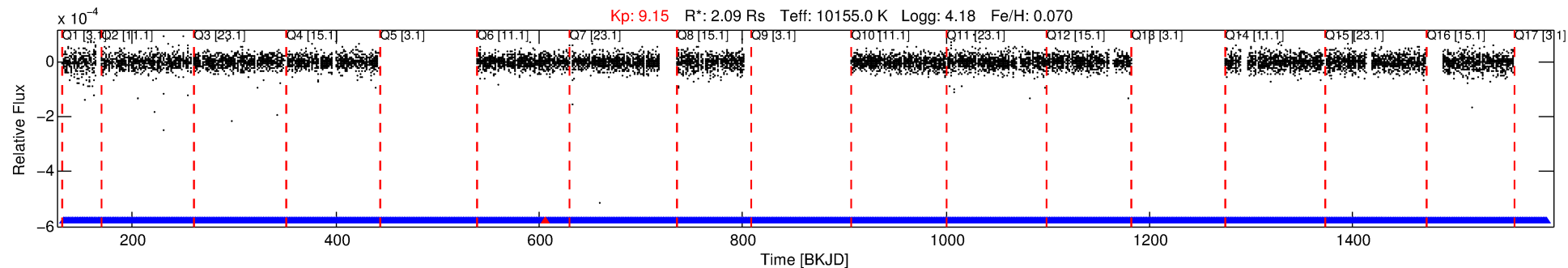
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006426158-05

No Significant Match Found

DV One-Page Summary

KIC: 6426158 Candidate: 5 of 5 Period: 0.812 d



DV Fit Results:

Period = 0.81183 [0.00068] d
Epoch = 132.2671 [0.0789] BKJD
 $R_p/R^* = 0.0004$ [0.0021]
 $b/R^* = 8.40$ [45.47]
 $b = 0.50$ [9.36]
 $\text{Seff} = 79362.97$ [44538.05]
 $T_{\text{eq}} = 4280$ [600] K
 $R_p = 0.10$ [0.48] R_e
 $a = 0.0229$ [0.0088] AU
 $A_g = 160.31$ [1549.43] [0.10] σ
 $T_{\text{eff}} = 23546$ [56818] K [0.34] σ

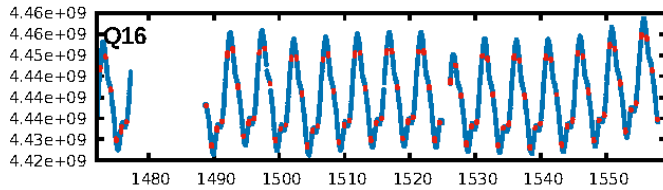
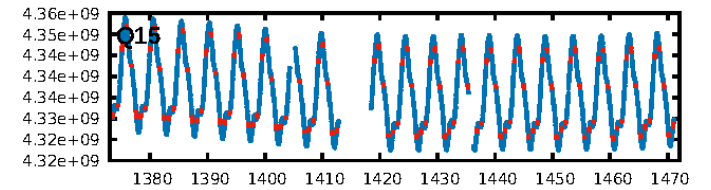
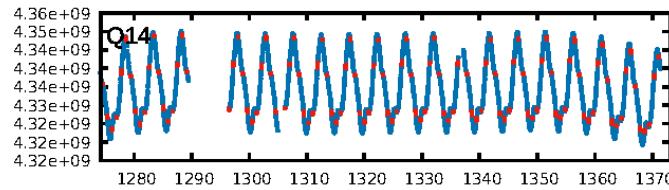
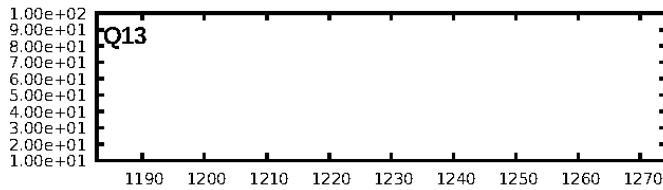
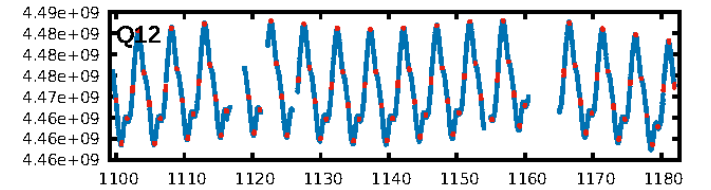
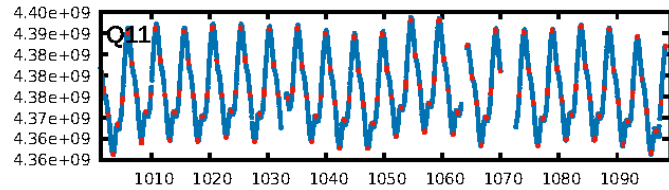
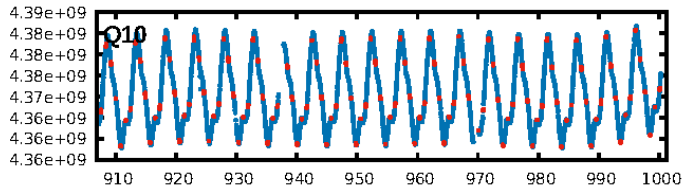
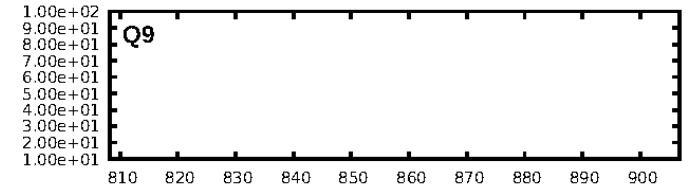
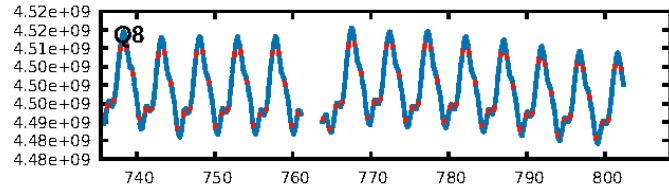
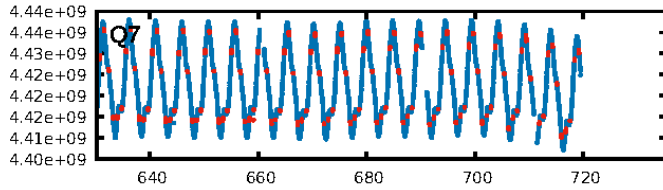
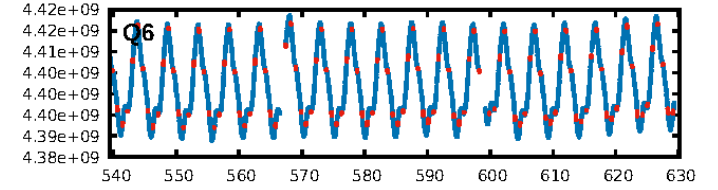
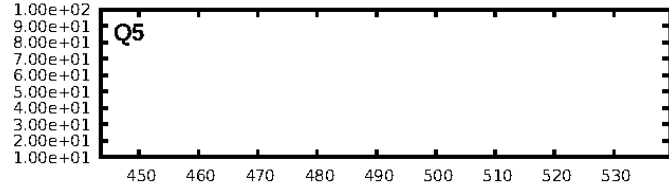
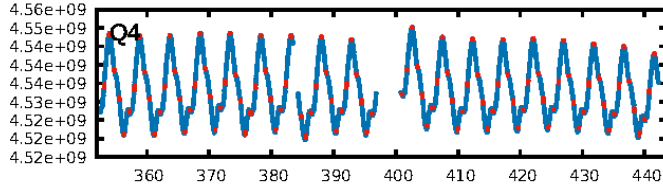
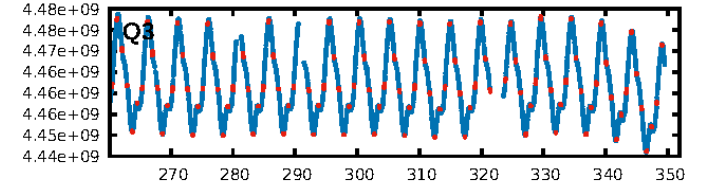
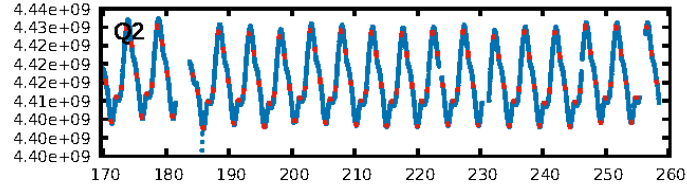
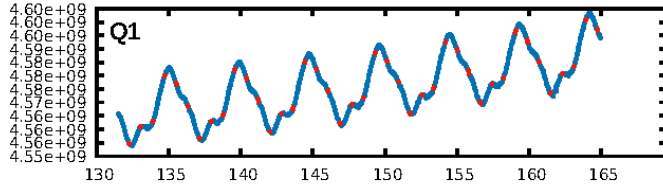
DV Diagnostic Results:

ShortPeriod-sig: 95.6% [2.01] σ
LongPeriod-sig: 100.0% [6.98] σ
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [402/403]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 2.539 arcsec [1.44] σ
Centroid-so: N/A
KicOffset-rm: 2.488 arcsec [1.54] σ
OotOffset-st: 3/4/3/0 [10]
KicOffset-st: 3/4/3/0 [10]
DiffImageQuality-fgm: 0.10 [1/10]
DiffImageOverlap-fno: 0.54 [7/13]

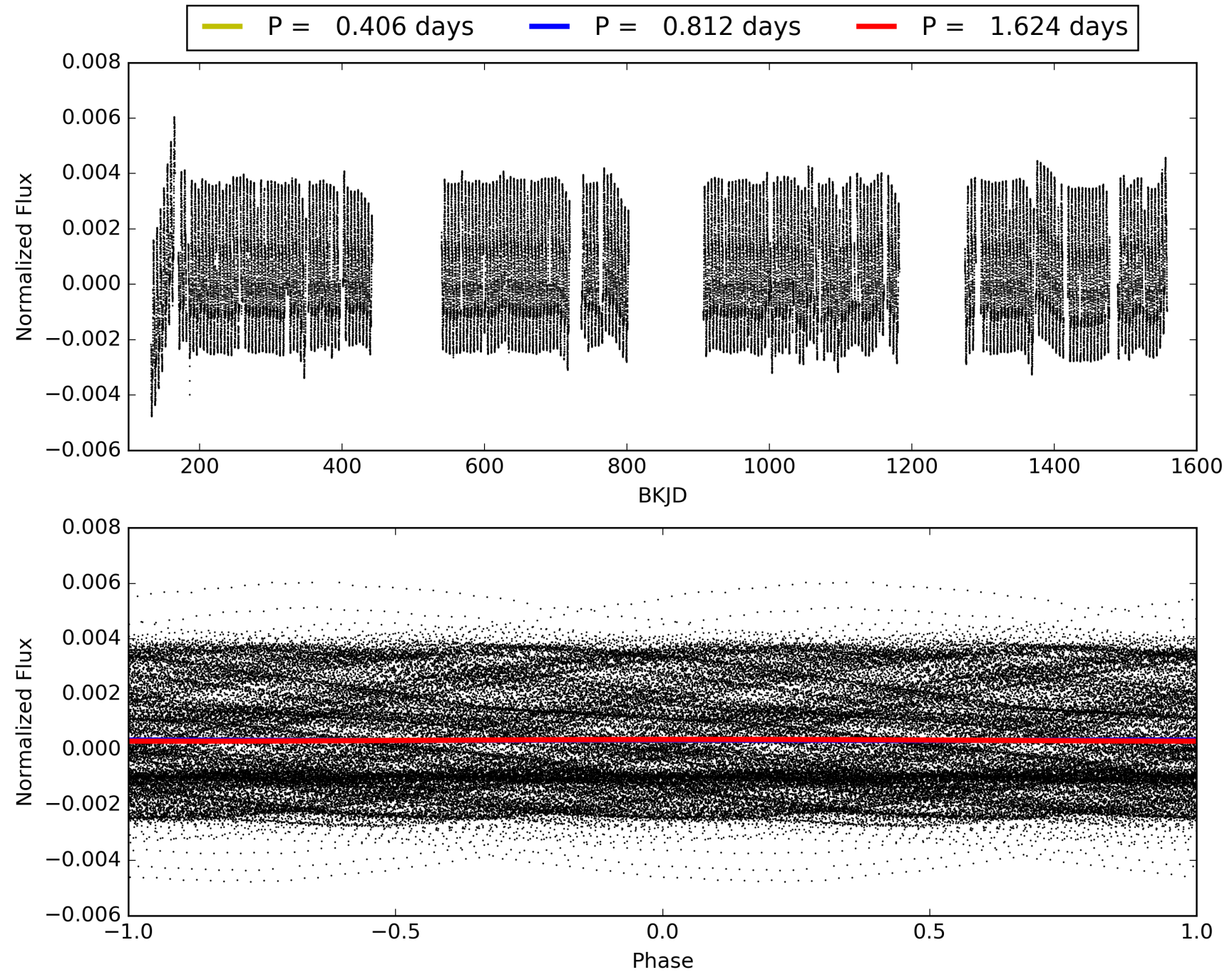
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 07:25:51 Z

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

TCE 006426158-05, PDC Light Curves

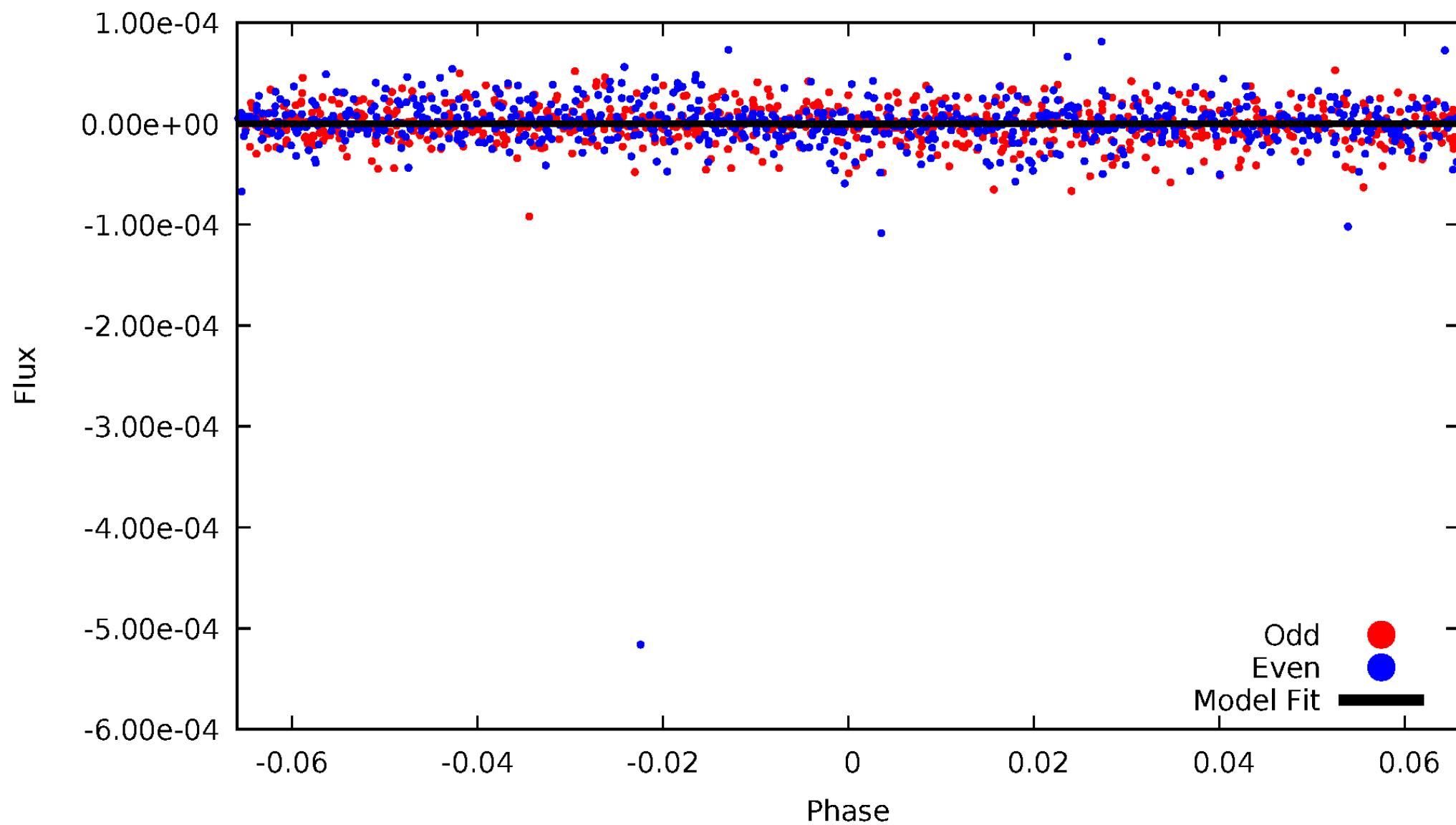


TCE 006426158-05



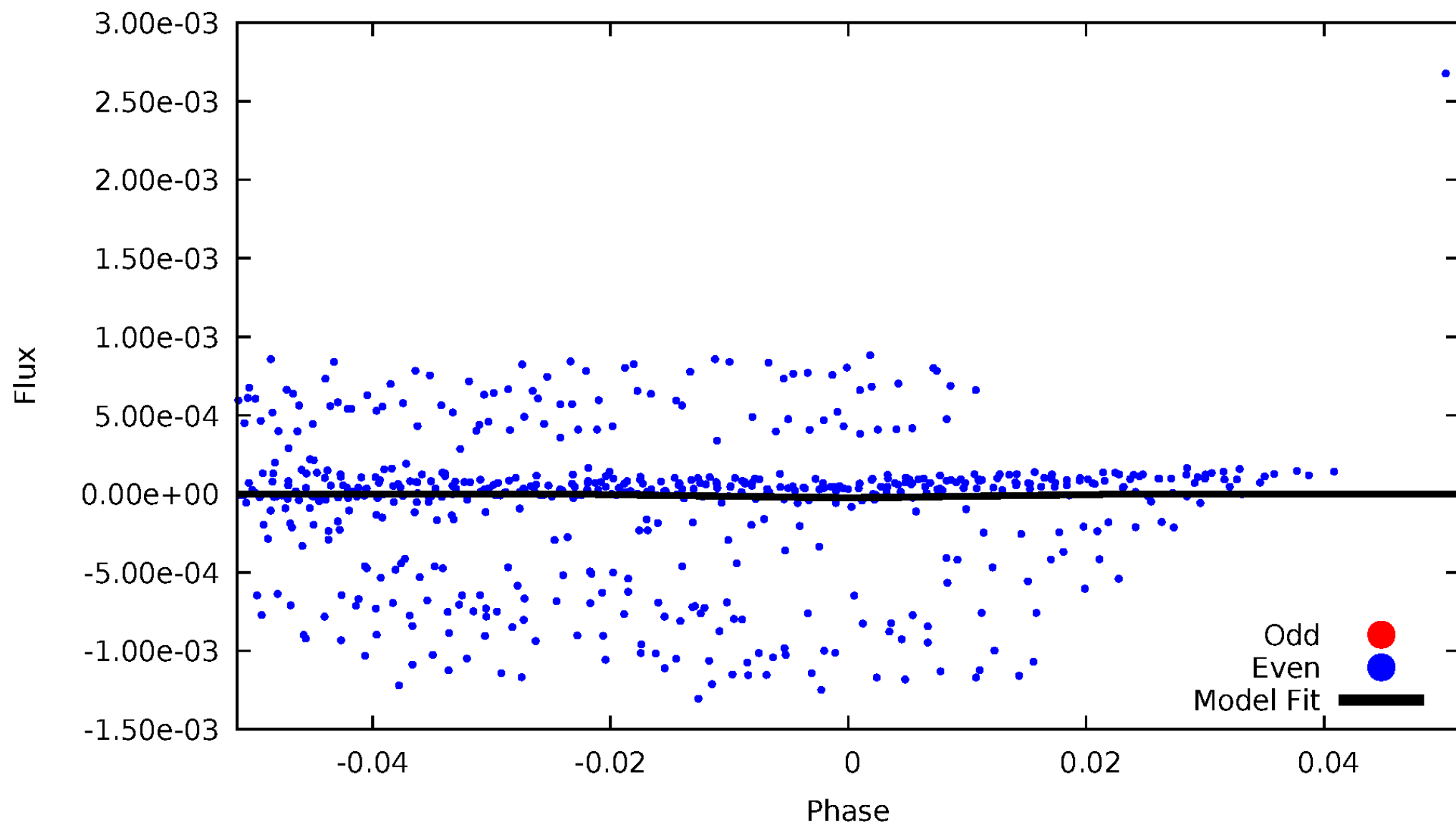
DV Odd/Even

TCE 006426158-05

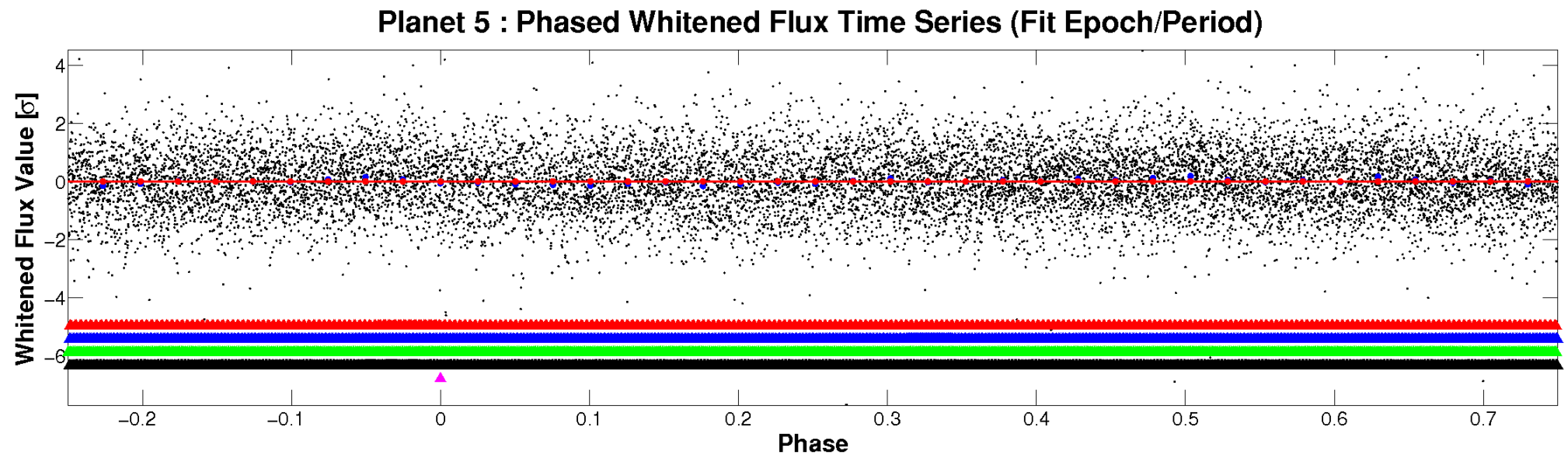
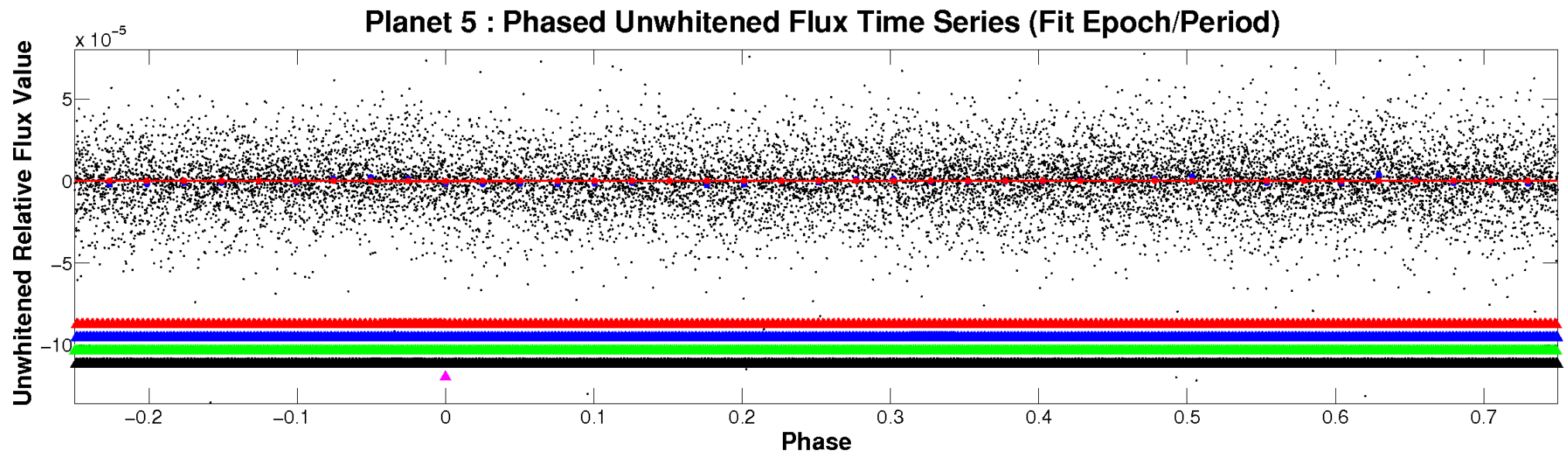


ALT Odd/Even

TCE 006426158-05

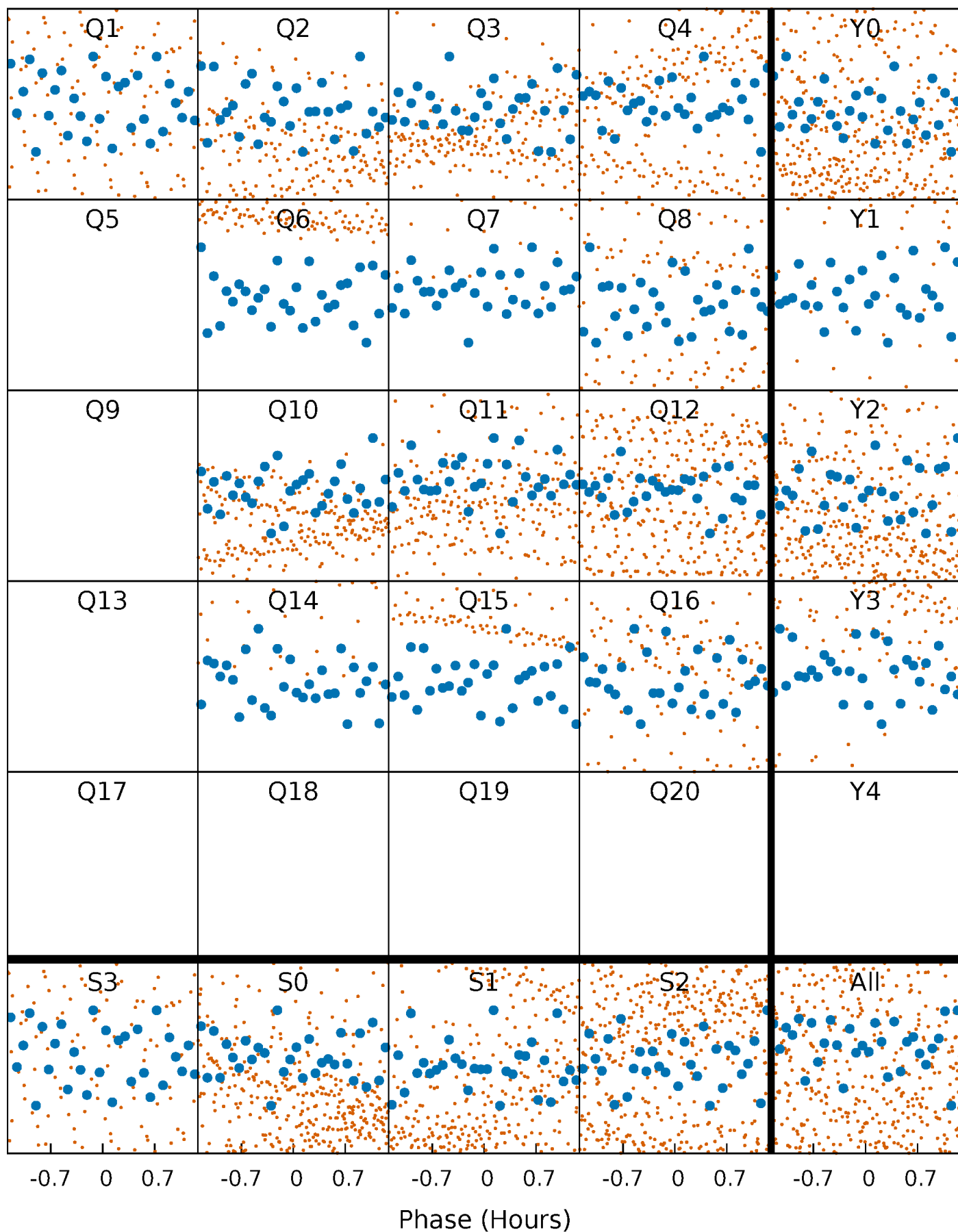


Non-Whitened Vs. Whitened Light Curve



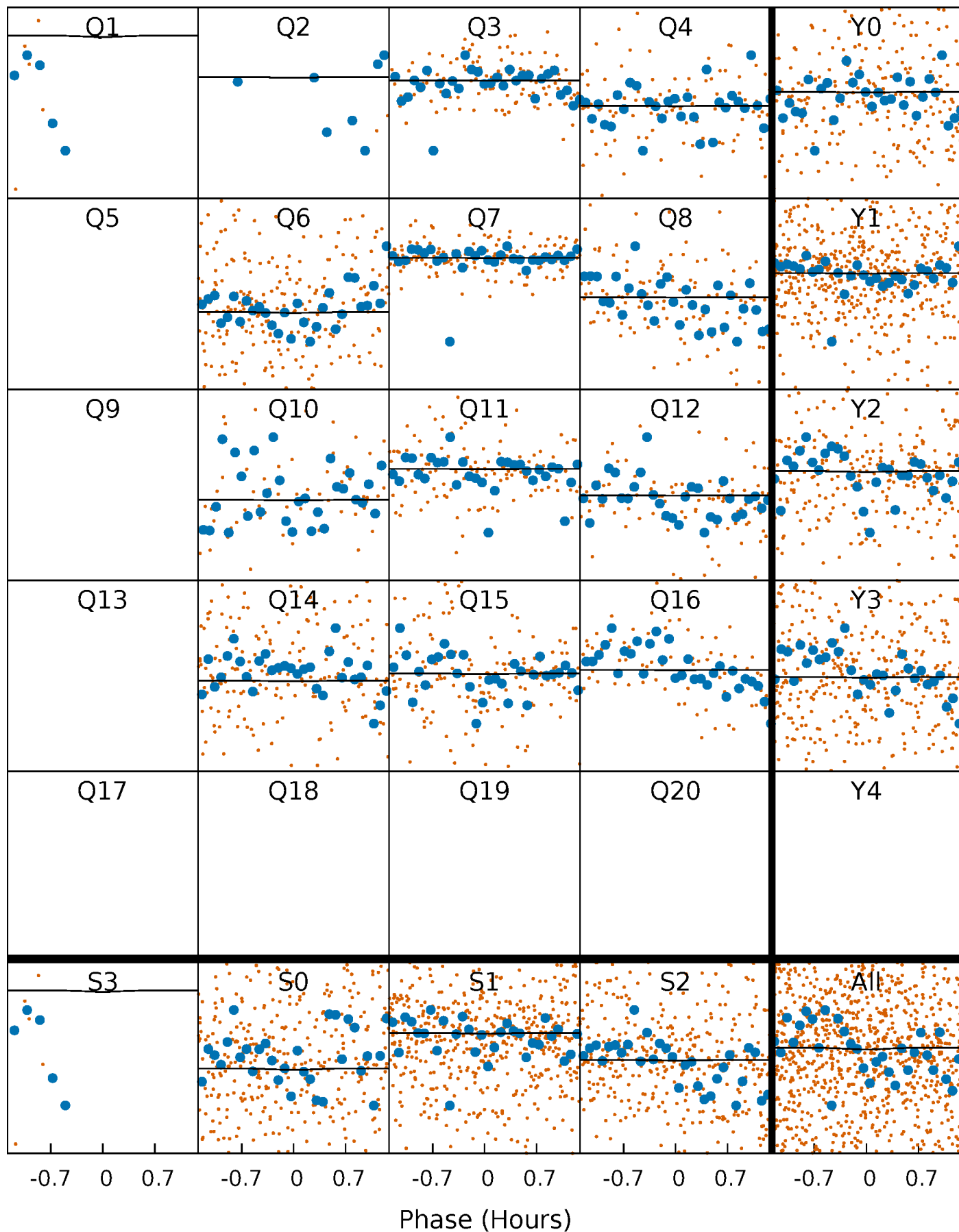
PDC Quarter-Phased Transit Curves

TCE 006426158-05 P= 0.811832 Days $T_0=132.267124$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 006426158-05 P= 0.811832 Days $T_0=132.267124$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

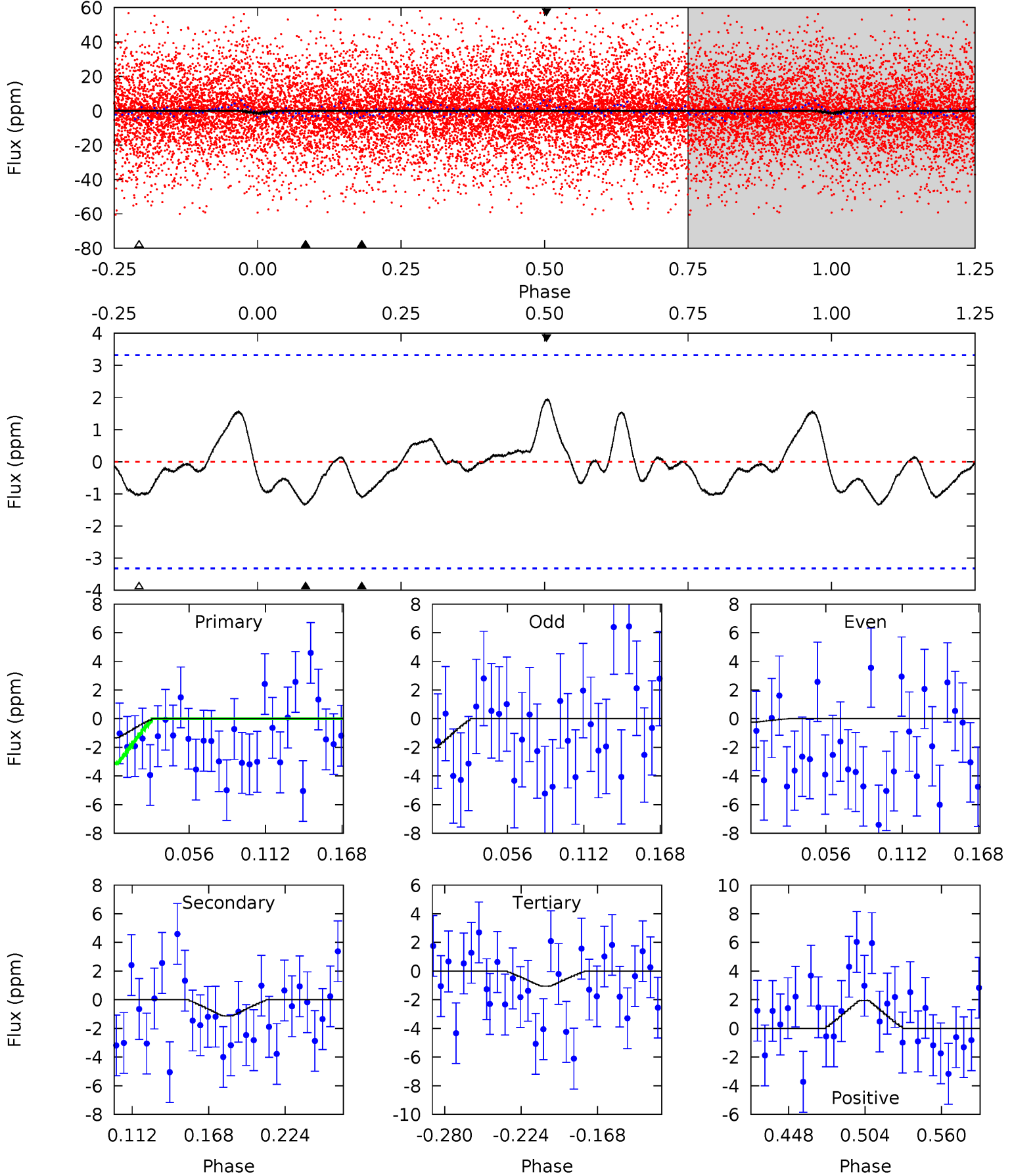
TCE 006426158-05 $P = 0.810944$ Days $T_0 = 132.321132$ (BKJD)



DV Model-Shift Uniqueness Test

006426158-05, P = 0.811832 Days, E = 131.455292 Days

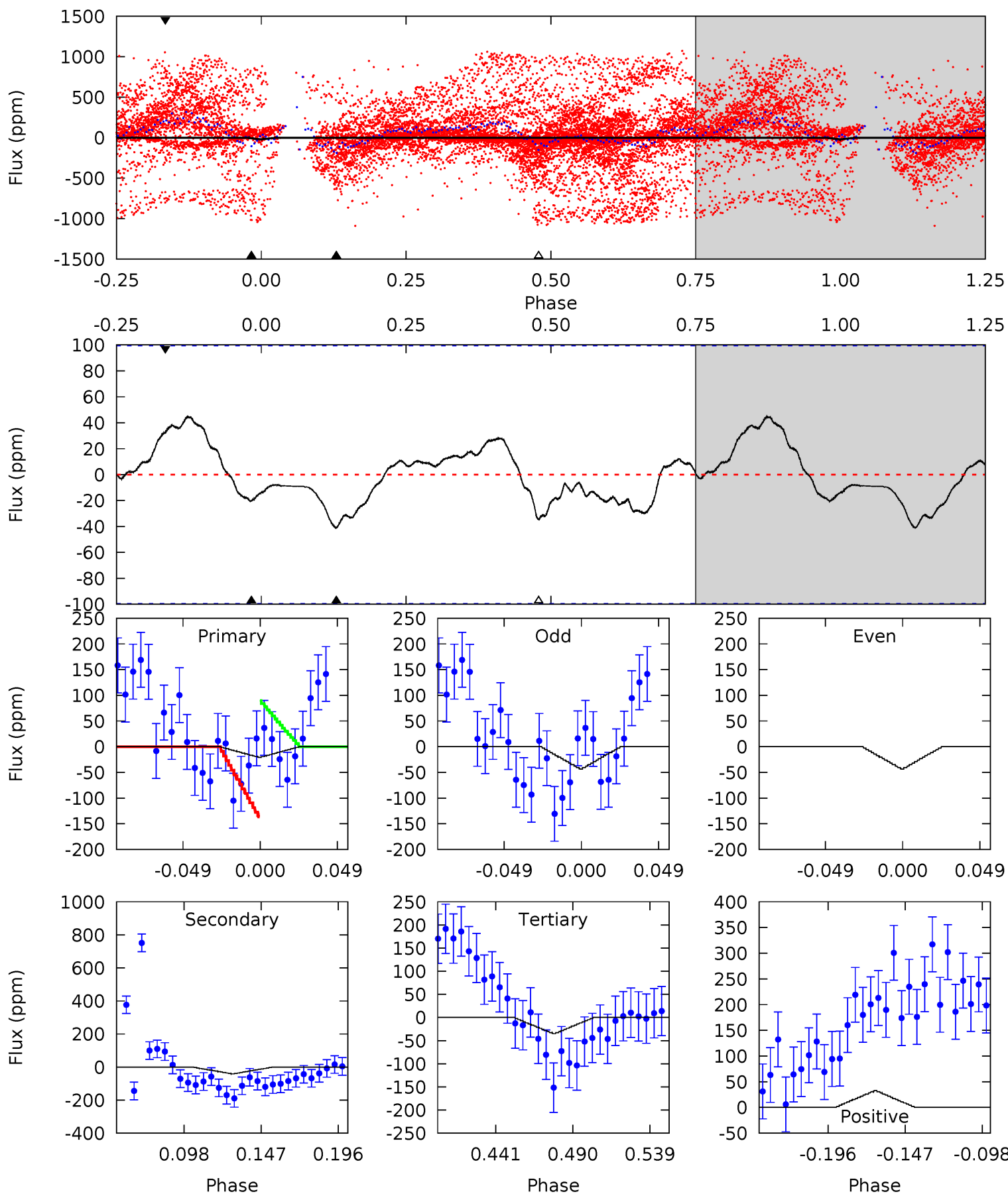
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.89	1.60	1.49	2.76	4.68	1.91	0.92	0.41	-0.87	0.11	-1.16	1.27	0.21	0.59	1.55



Alt Model-Shift Uniqueness Test

006426158-05, P = 0.810944 Days, E = 131.510188 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.98	1.94	1.65	1.54	4.71	1.97	0.94	-0.67	-0.56	0.29	0.40	0	-1.81	0.52	1.24



Stellar Parameters For KIC 006426158

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	10155^{+286}_{-429}	$4.183^{+0.151}_{-0.280}$	$0.070^{+0.150}_{-0.550}$	$2.089^{+0.999}_{-0.538}$	$2.426^{+0.481}_{-0.481}$	$0.375^{+0.356}_{-0.238}$
	+3%/-4%	+4%/-7%	+214%/-786%	+48%/-26%	+20%/-20%	+95%/-64%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 006426158-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-1 ± 1	$0.37^{+0.40}_{-0.26}$	6089^{+662}_{-472}	7231^{+13097}_{-4106}	$2.006^{+21.493}_{-1.688}$
Alt.	-41 ± 21	$1.21^{+0.61}_{-0.52}$	6090^{+712}_{-506}	11491^{+9187}_{-3576}	$7.261^{+17.301}_{-4.819}$

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 $A_{obs} \gg 1.0$

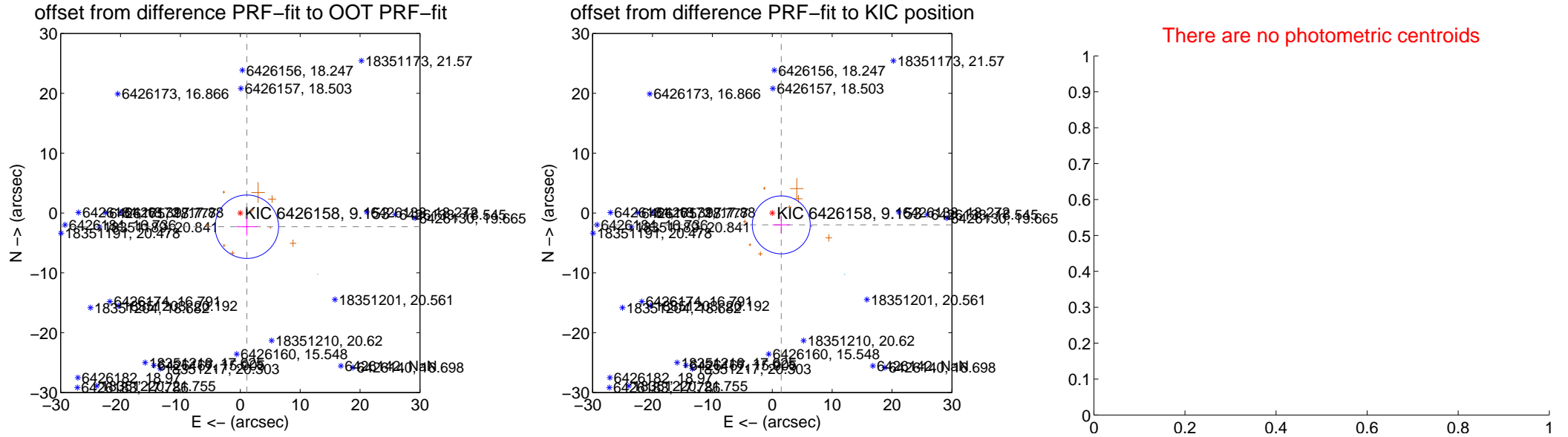
DV Centroid Data

Supplemental centroid analysis for 006426158-05. **Kepler magnitude: 9.15.** Transit SNR 0.16

There are 1 quarters with good PRF difference image offsets

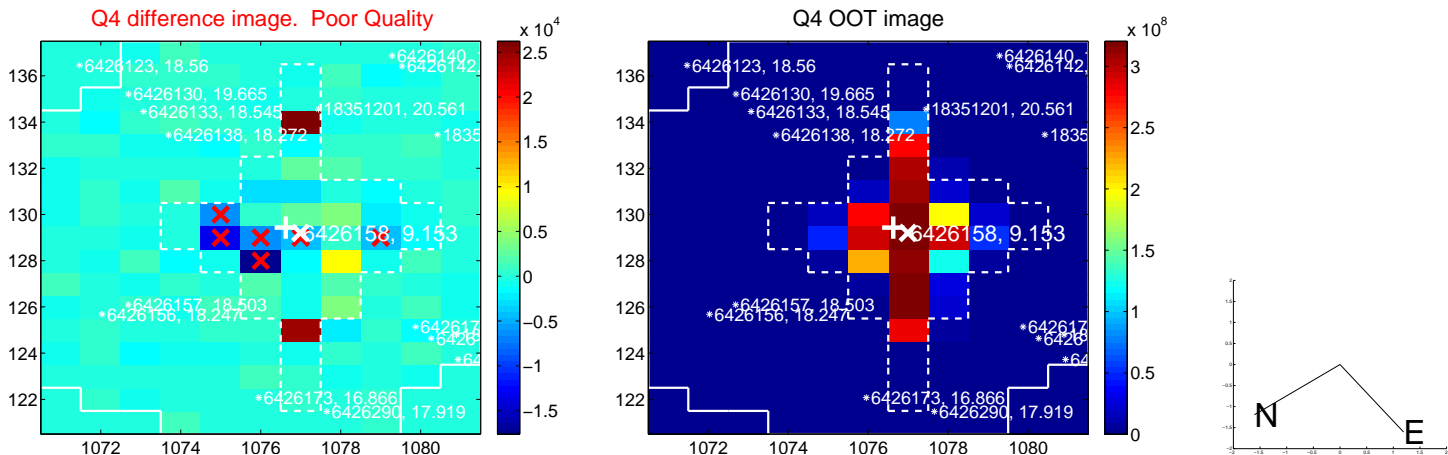
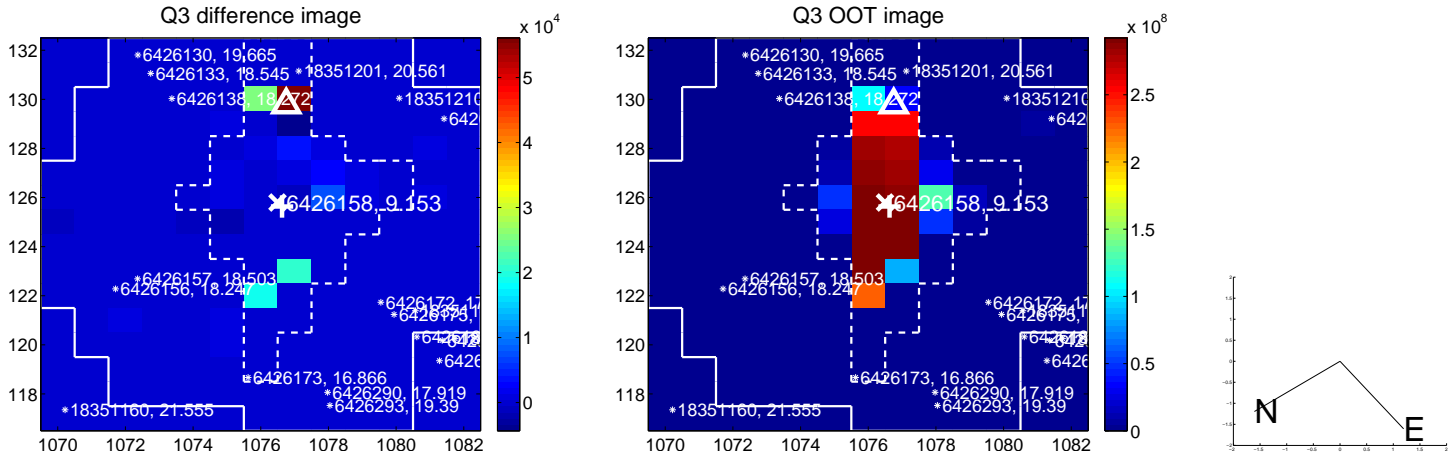
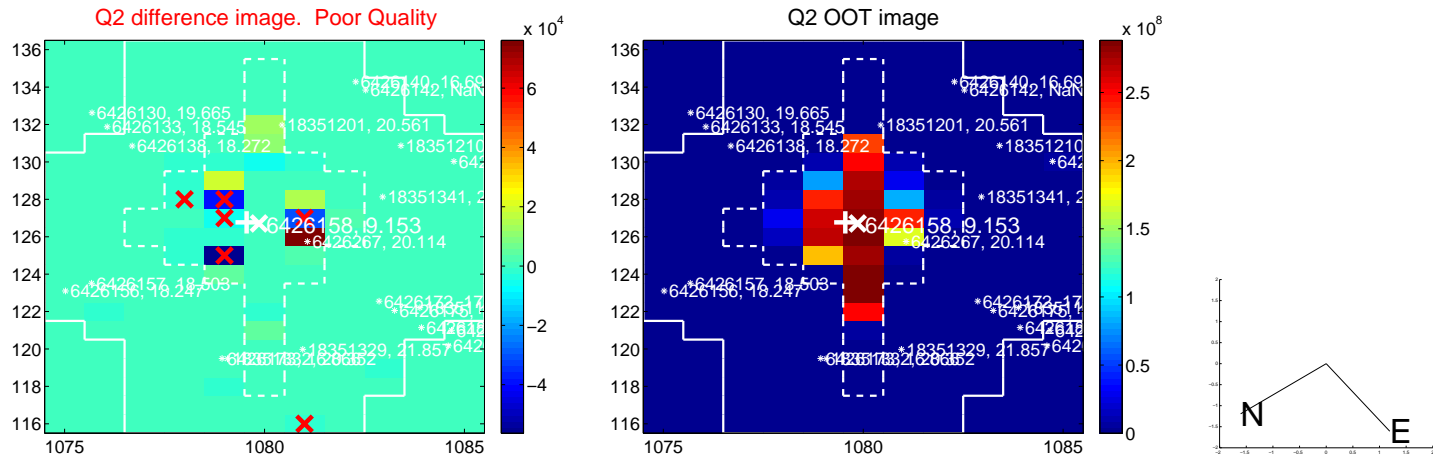
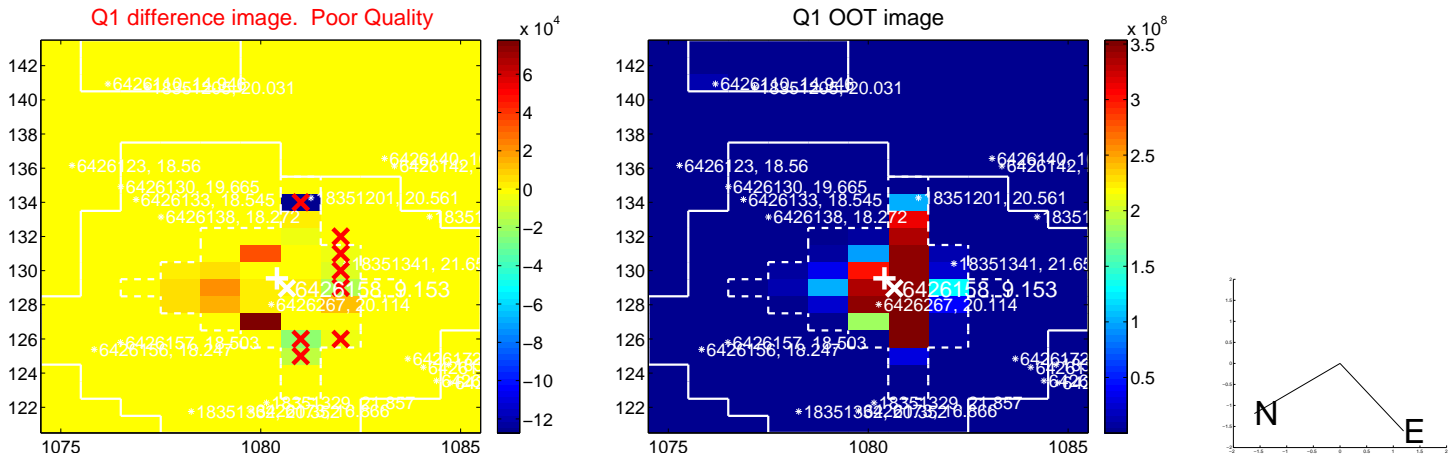
The direct PRF centroid is offset from the target star catalog position by about 1.54 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.539 ± 1.767	1.44	-1.094 ± 1.710	-2.292 ± 1.484
PRF-fit source offset from KIC position	2.488 ± 1.614	1.54	-1.504 ± 1.448	-1.982 ± 1.441
photometric centroid source offset	—	—	—	—



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.

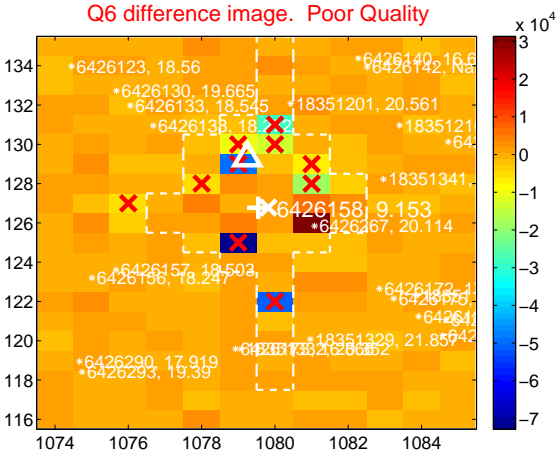
Q5 no difference image



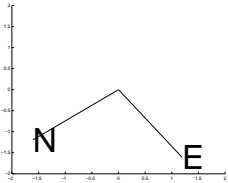
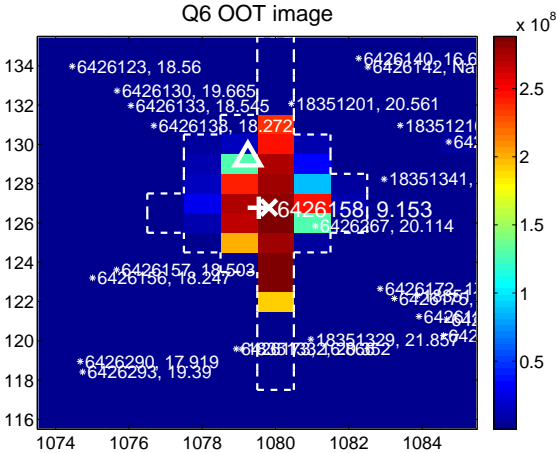
Q5 no OOT image



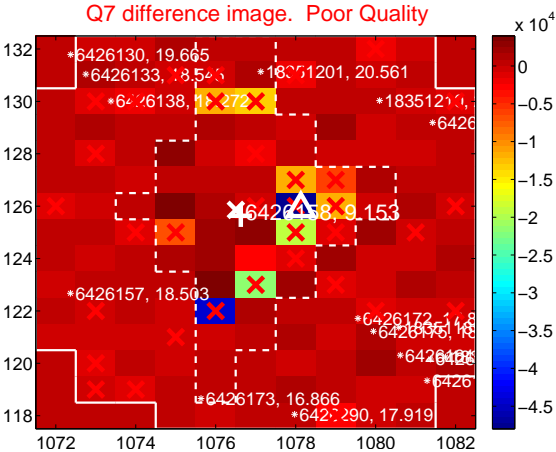
Q6 difference image. Poor Quality



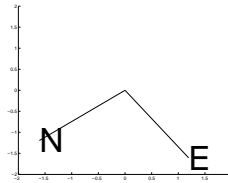
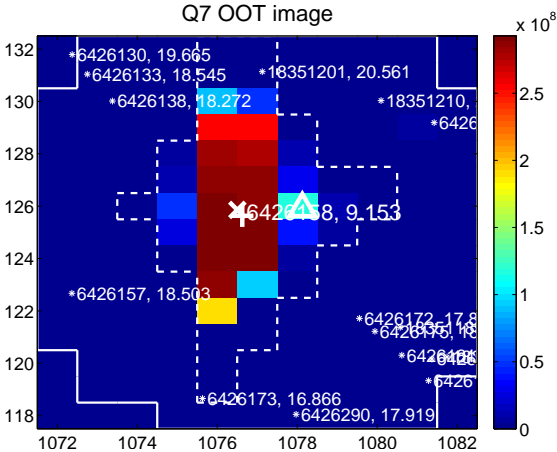
Q6 OOT image



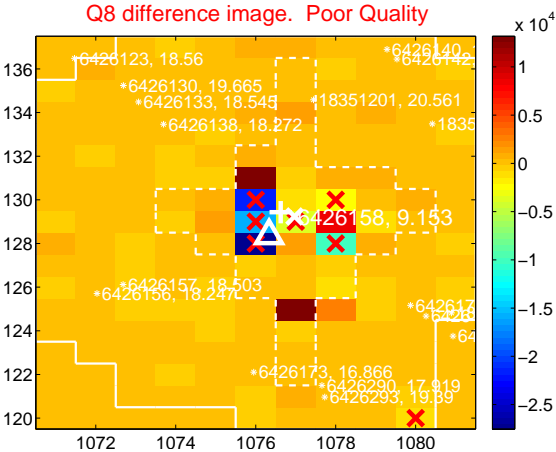
Q7 difference image. Poor Quality



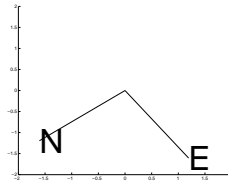
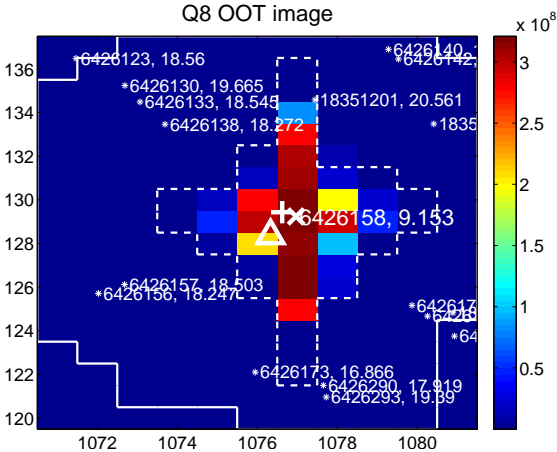
Q7 OOT image



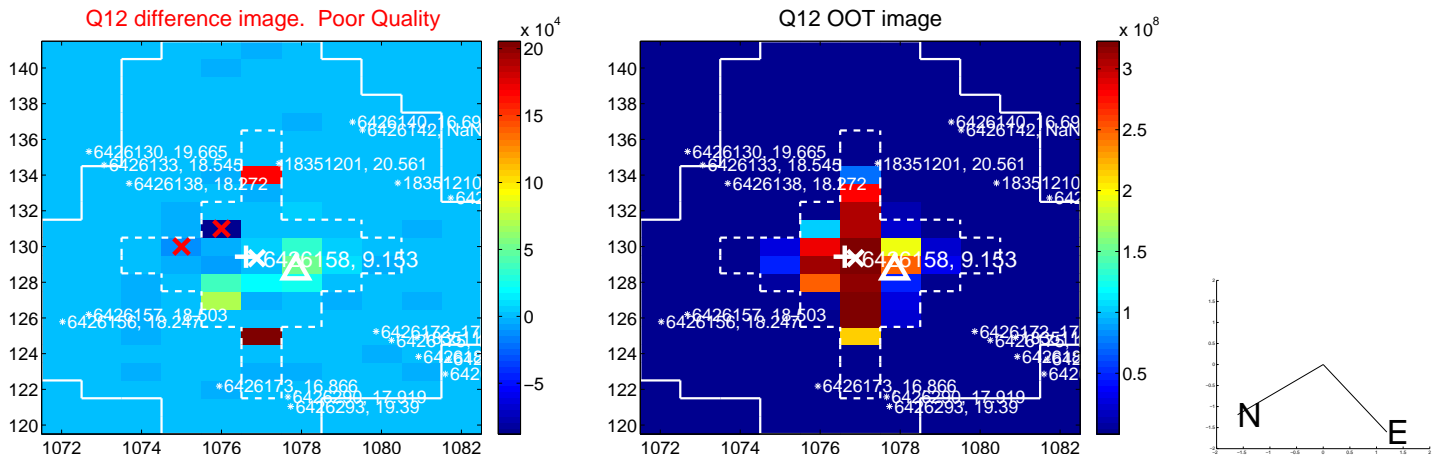
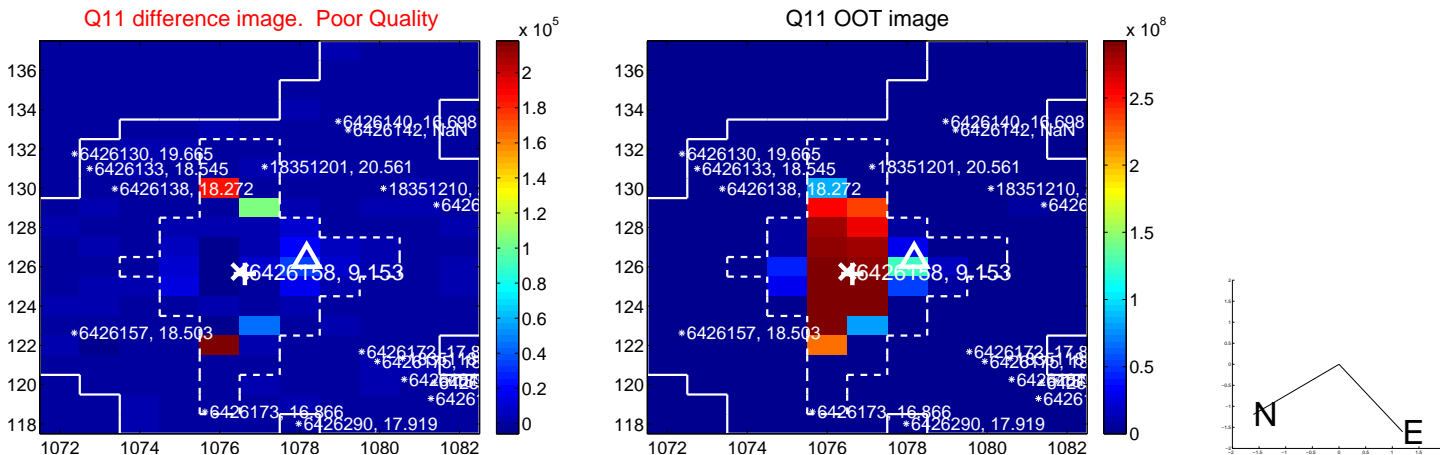
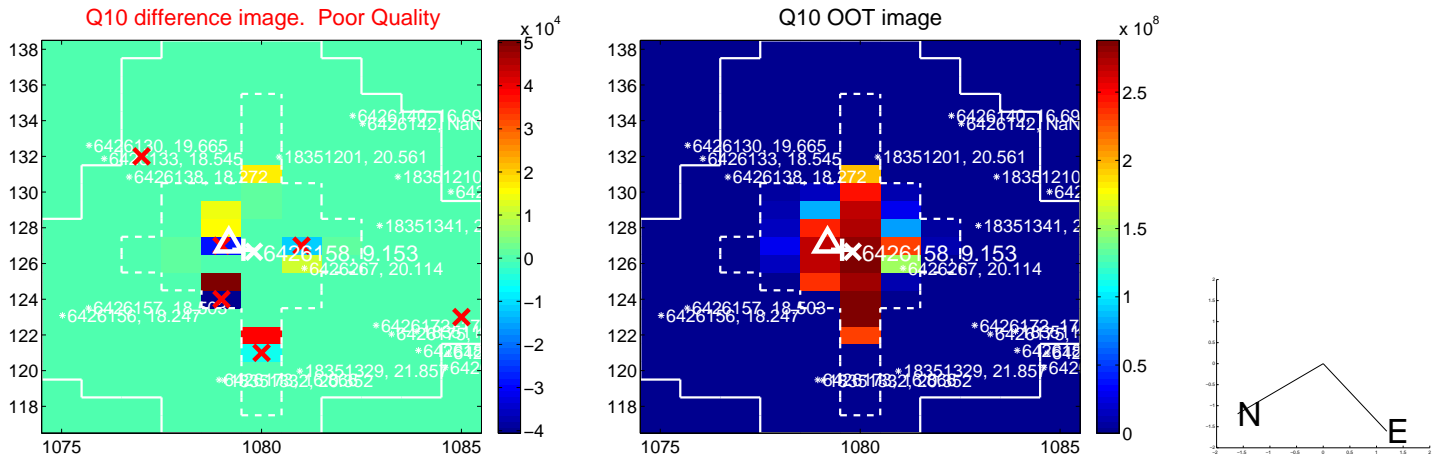
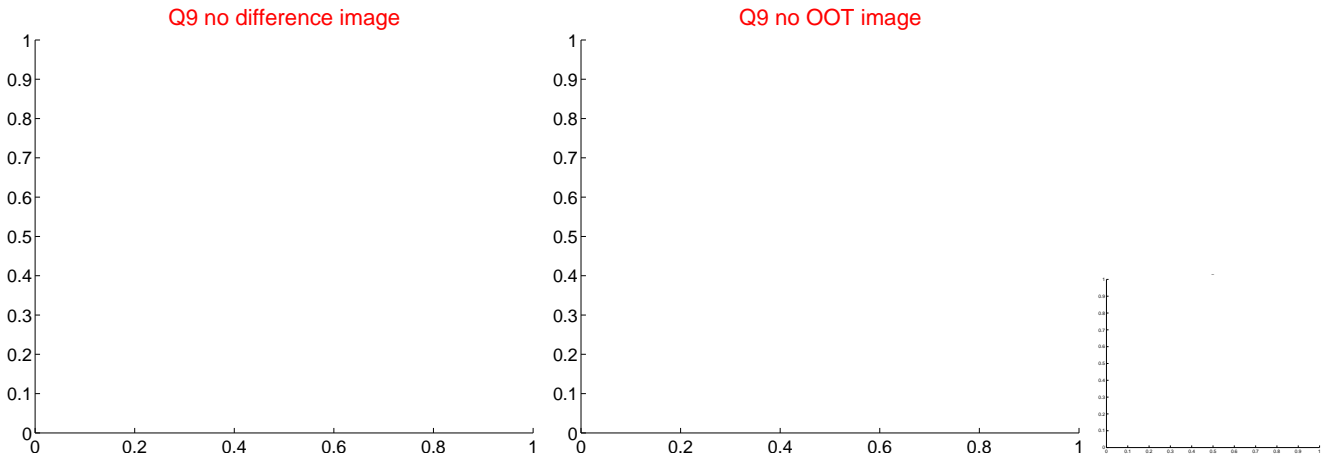
Q8 difference image. Poor Quality



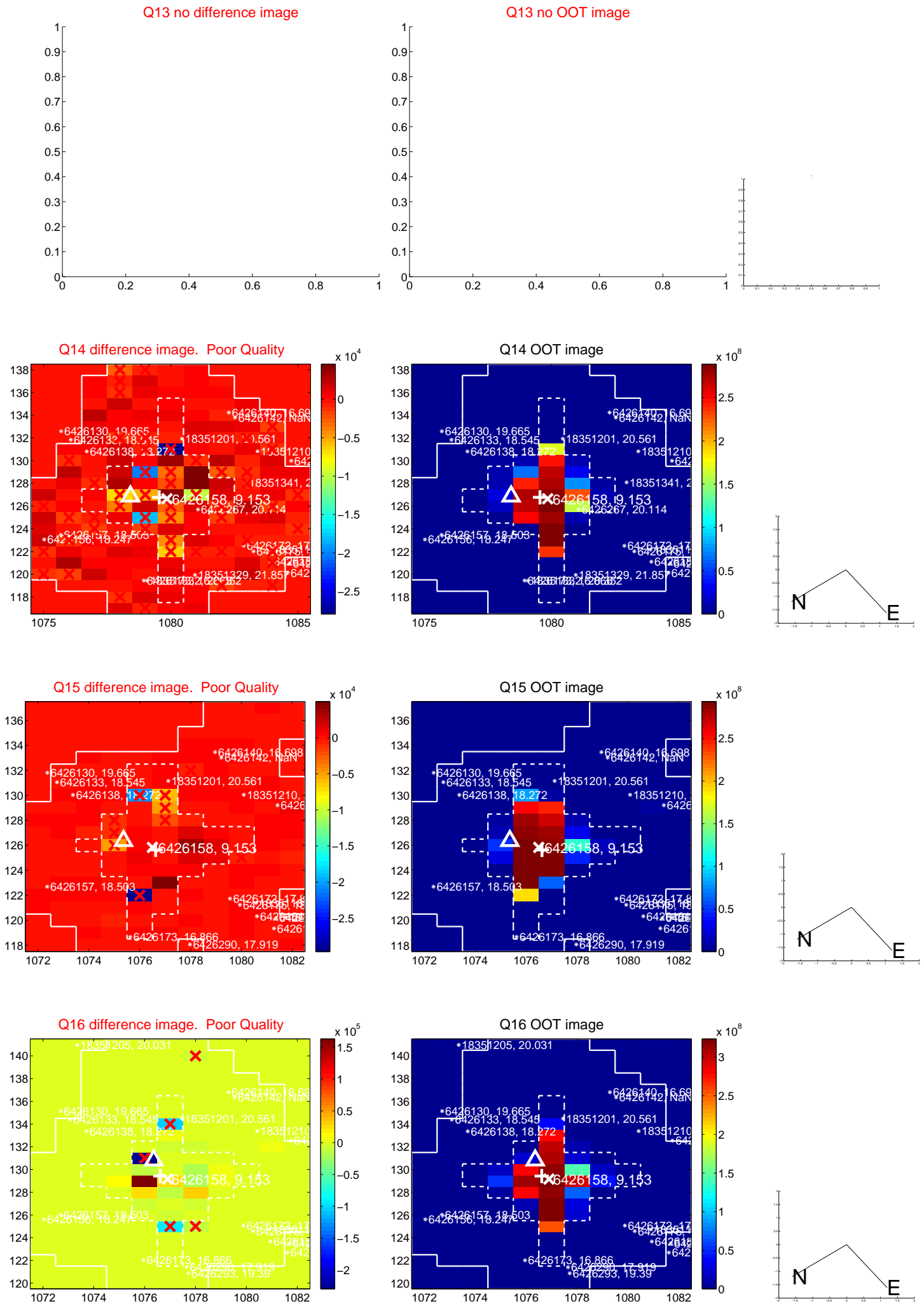
Q8 OOT image



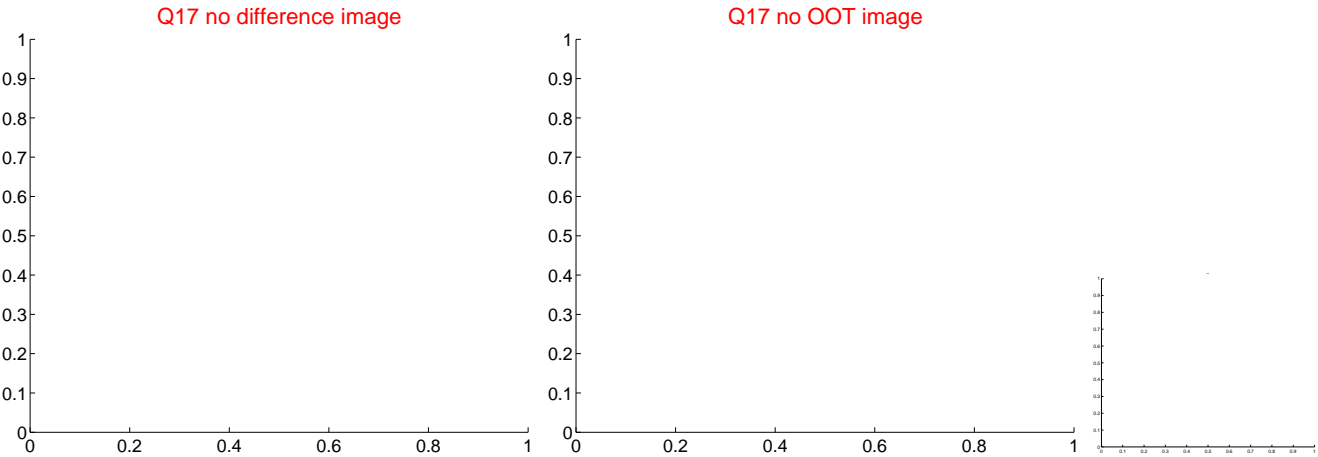
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



folded centroid time series figure for this object.

UKIRT Image

Declination

