

KIC 005024126

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})
005024126-01	OBS	6493.01	0.787108	131.741784	120.0	1.546	10.3	10.5	0.80	5210	1.06	1777.86
005024126-02	OBS	No	0.787018	132.162504	2.5	5.470	8.0	0.4	0.80	5210	0.12	1778.13
005024126-03	OBS	No	33.835014	138.262995	628.0	2.568	8.7	8.4	0.80	5210	2.01	11.81
005024126-05	OBS	No	3.392498	133.369989	900.6	0.625	8.6	7.6	0.80	5210	3.03	253.46

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005024126-01	OBS	FP	0.00	0	1	1	1	MOD_SEC_DV—MOD_SEC_ALT—HAS_SEC_TCE—CENT_RESOLVED_OFFSET—EPHEM_MATCH
005024126-02	OBS	FP	0.00	1	1	1	0	IS_SEC_TCE—CENT_RESOLVED_OFFSET
005024126-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
005024126-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS

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 005024126-01

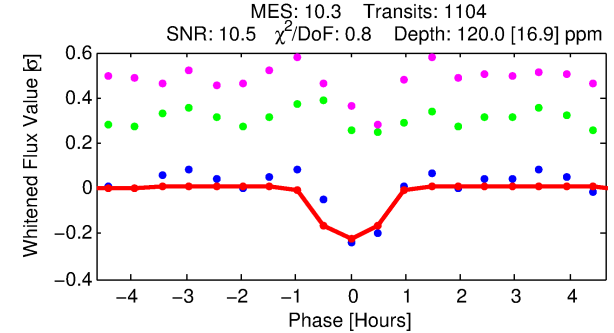
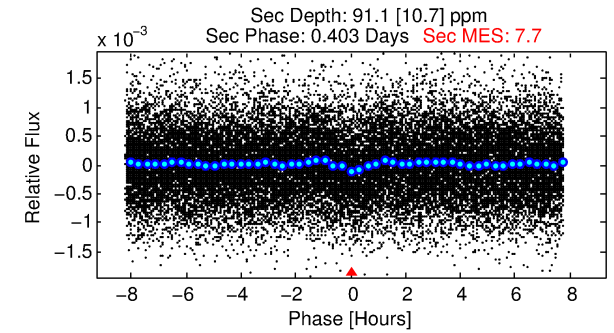
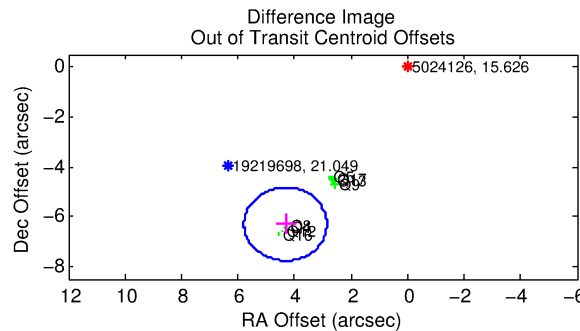
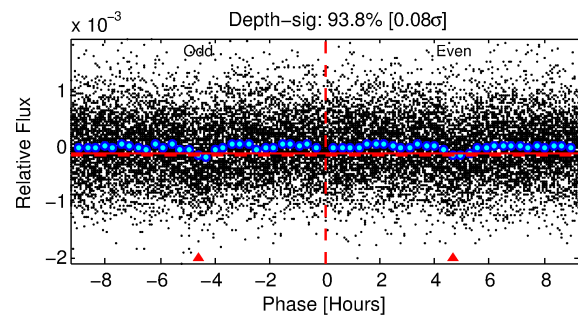
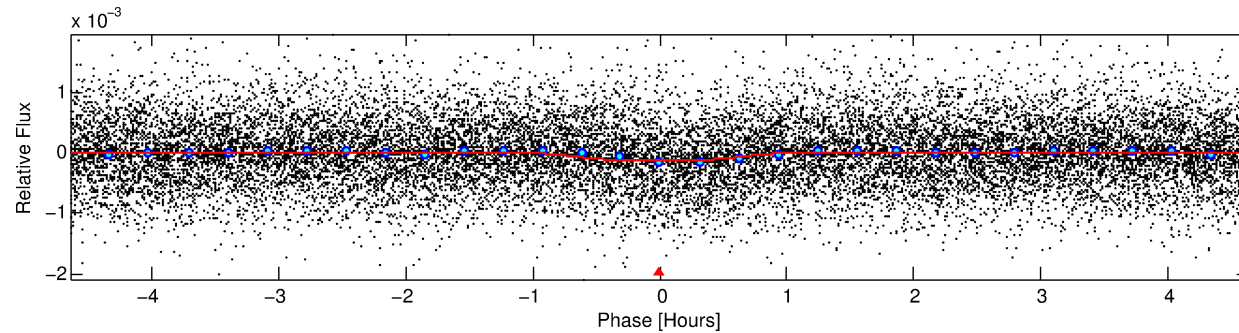
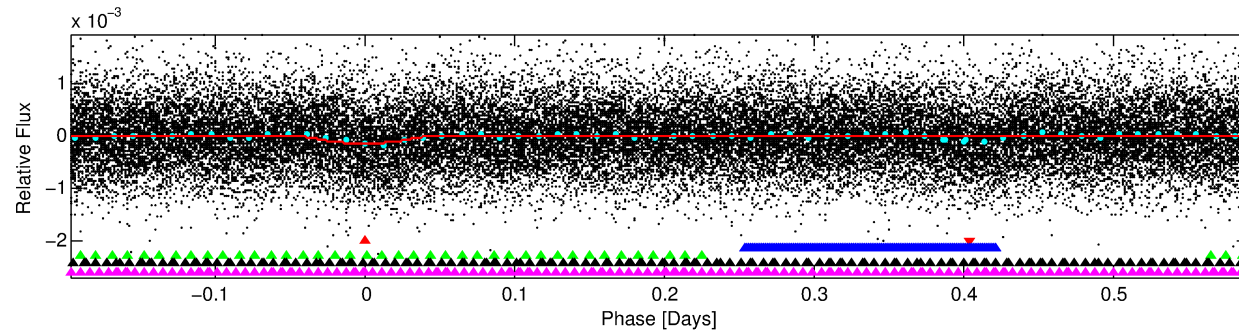
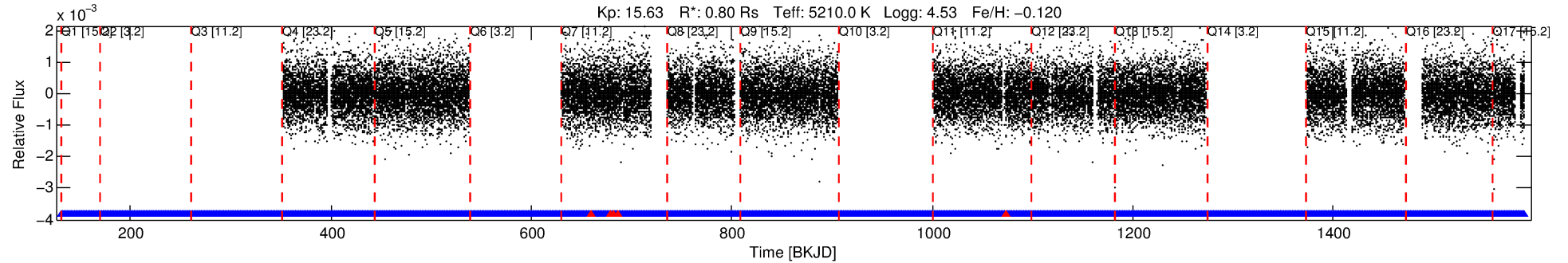
TCE (1)	KIC	Parent (2)	Parent KIC	$P_1:P_2$	Dist ($''$)	Δ Row	Δ Col	m_2	m_1	D_2/D_1	Mechanism	Flag	σ_P	σ_T
005024126-01	5024126	4286.01	5024177	1:1	20.5	-3	4	14.96	15.62	2.82	Direct-PRF	0	1.73	0.29

Notes: $P_1:P_2$ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 5024126 Candidate: 1 of 5 Period: 0.787 d
KOI: K06493 Corr: No Ephemeris Match

Kp: 15.63 R*: 0.80 Rs Teff: 5210.0 K Logg: 4.53 Fe/H: -0.120



DV Fit Results:

Period = 0.78711 [0.00001] d
Epoch = 131.7418 [0.0022] BKJD
Rp/R* = 0.0122 [0.0105]
a/R* = 2.03 [5.58]
b = 0.90 [0.79]
Seff = 1777.86 [393.01]
Teq = 1656 [92] K
Rp = 1.06 [0.92] Re
a = 0.0154 [0.0017] AU
Ag = 10.55 [18.26] [0.52σ]
Teff = 4614 [1996] K [1.48σ]

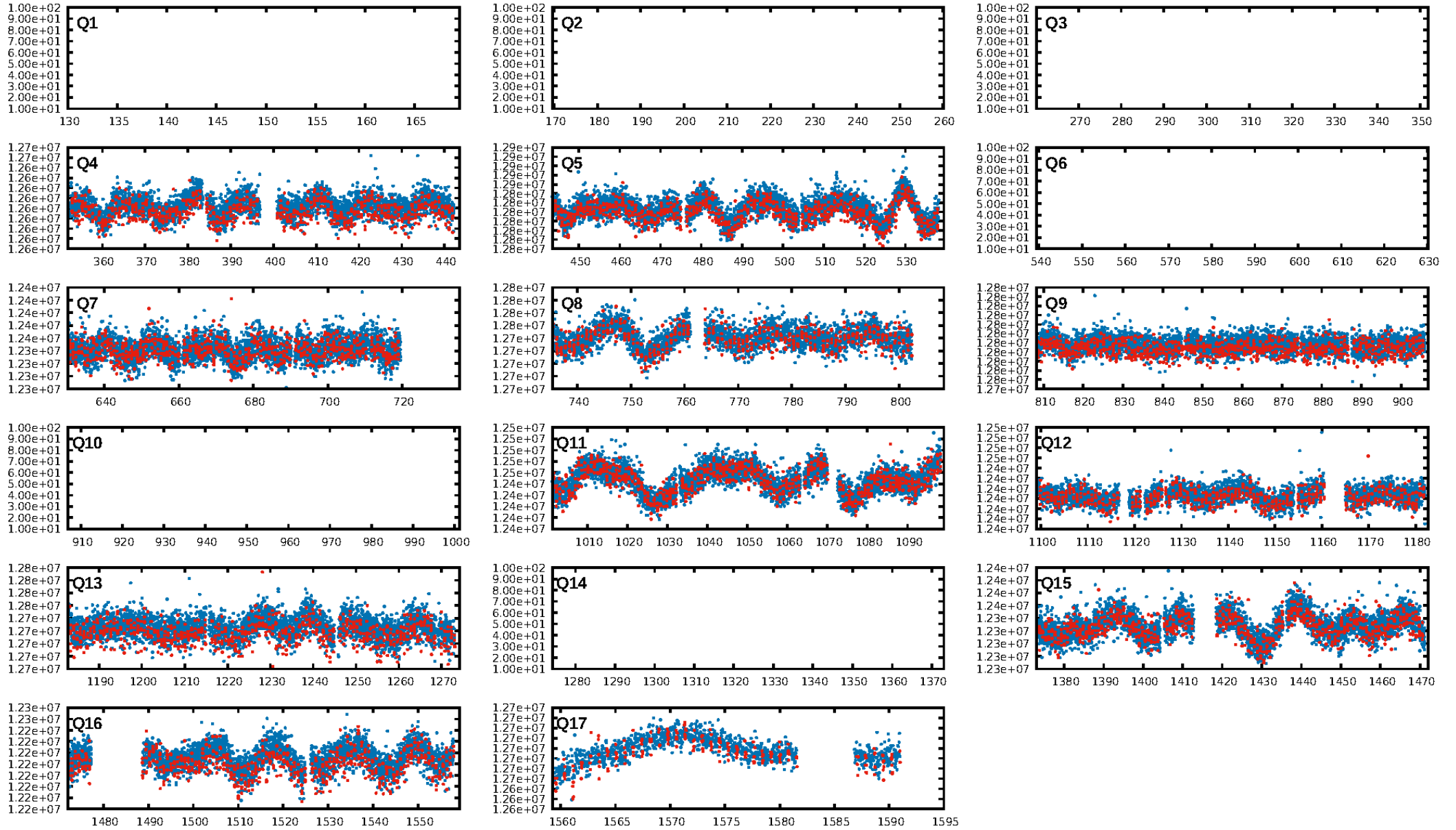
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: 100.0% [37.50σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 5.40e-11
RollingBand-fgt: 1.00 [1064/1069]
GhostDiagnostic-chr: -0.5868
Centroid-sig: N/A
Centroid-so: 10.673 arcsec [7.35σ]
OotOffset-rm: 7.646 arcsec [15.66σ]
KicOffset-rm: 7.806 arcsec [14.66σ]
OotOffset-st: 0/0/4/4 [8]
KicOffset-st: 0/0/4/4 [8]
DiffImageQuality-fgm: 1.00 [8/8]
DiffImageOverlap-fno: 0.45 [5/11]

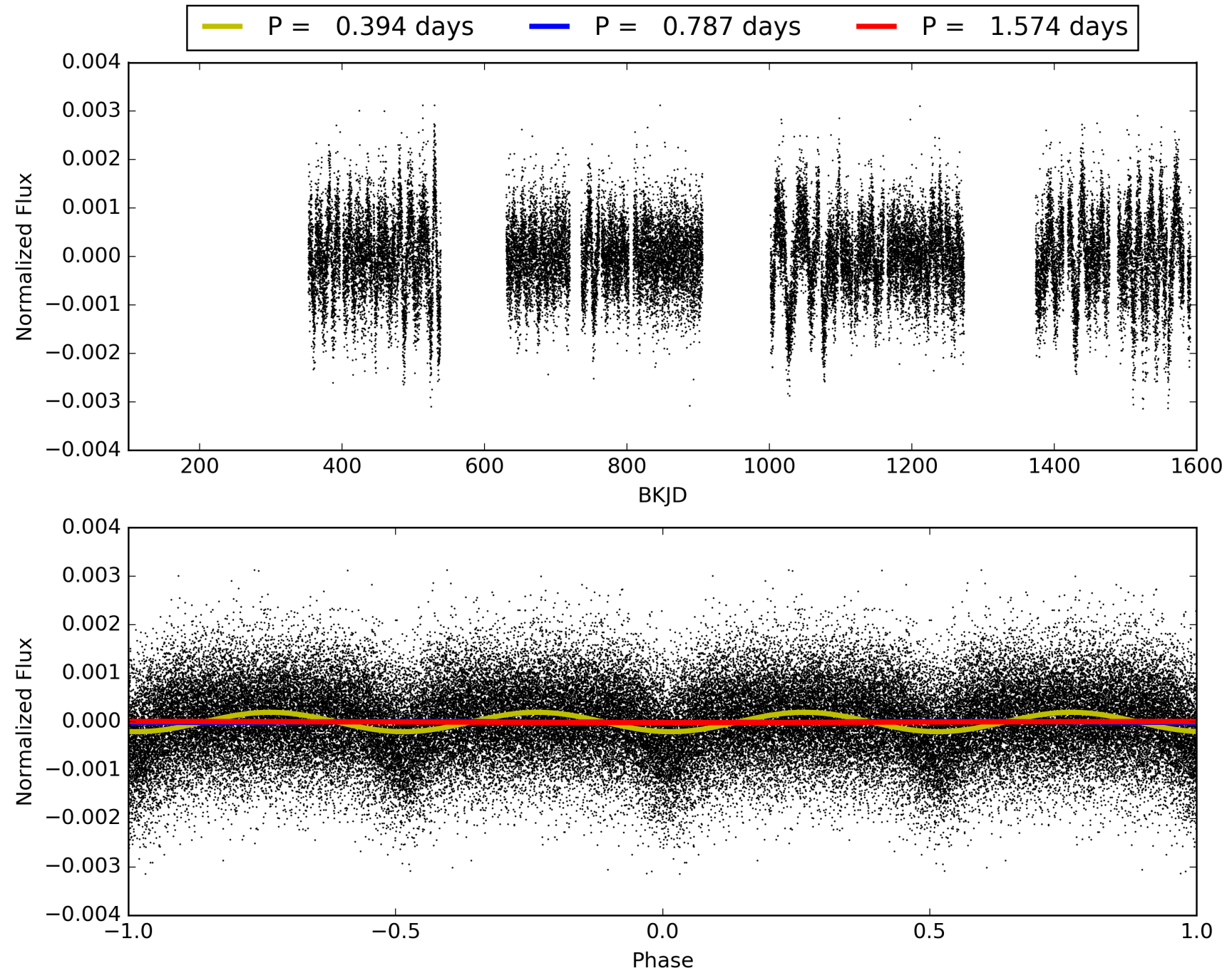
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 19:30:33 Z

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

TCE 005024126-01, PDC Light Curves

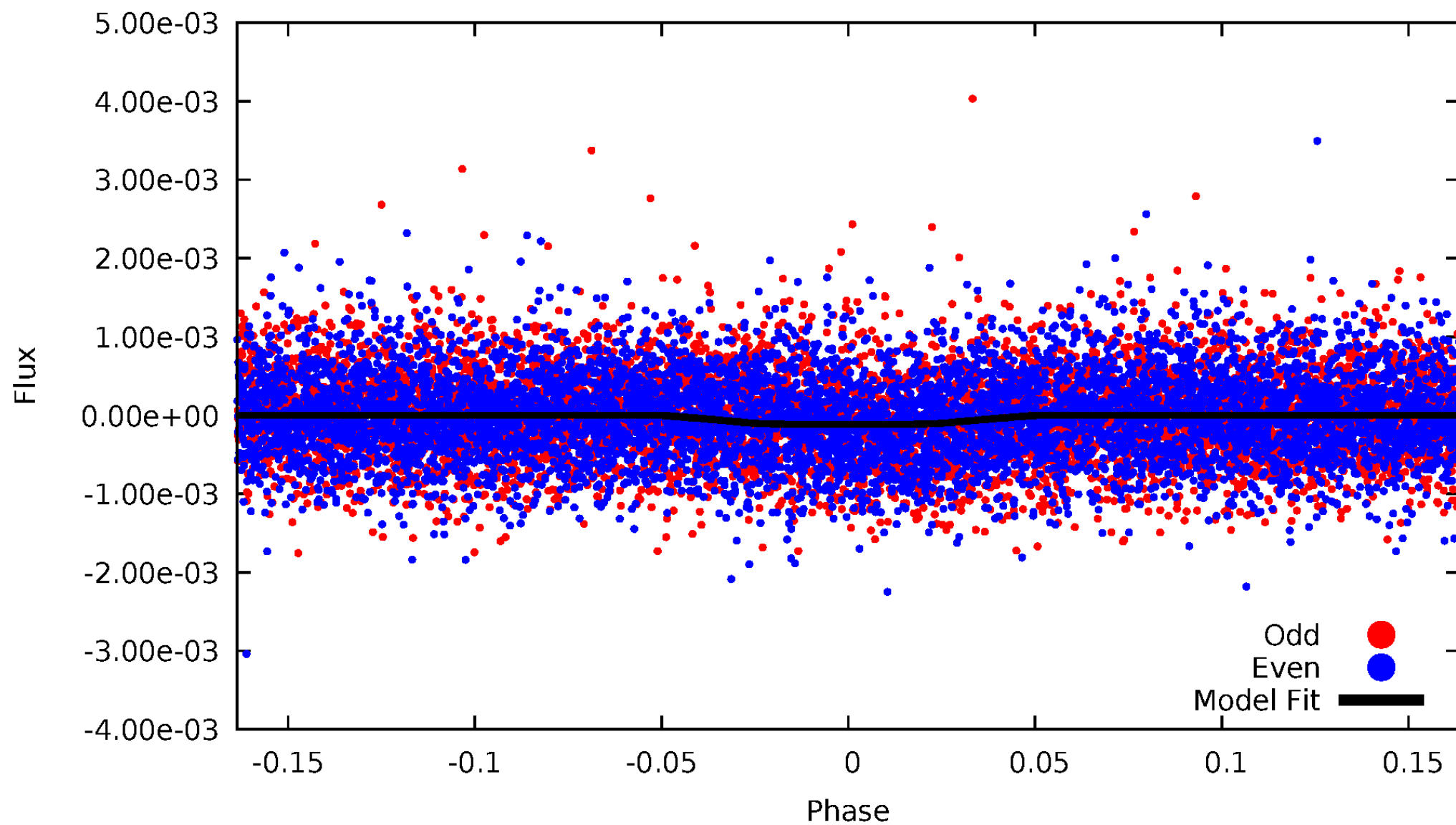


TCE 005024126-01



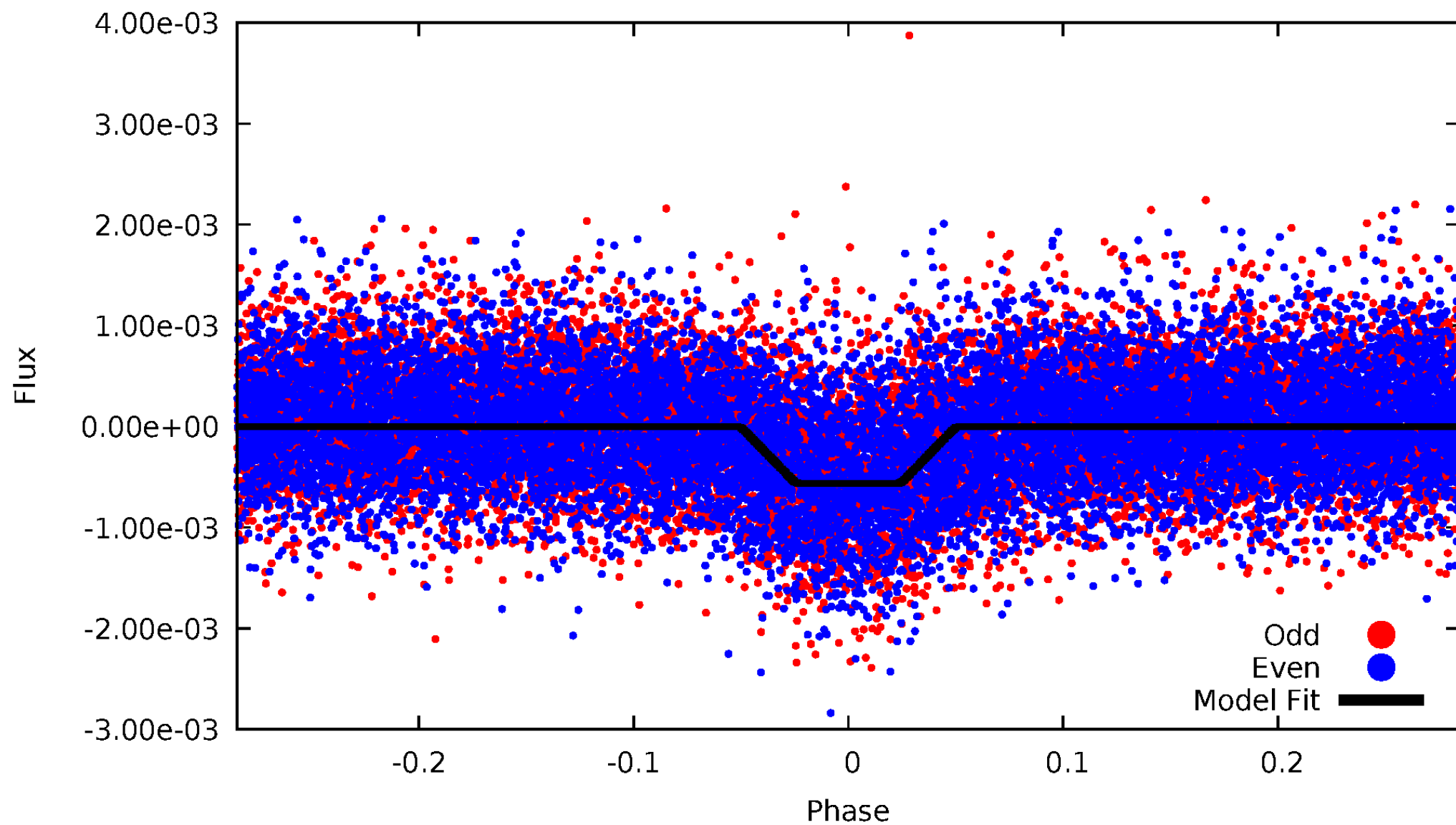
DV Odd/Even

TCE 005024126-01



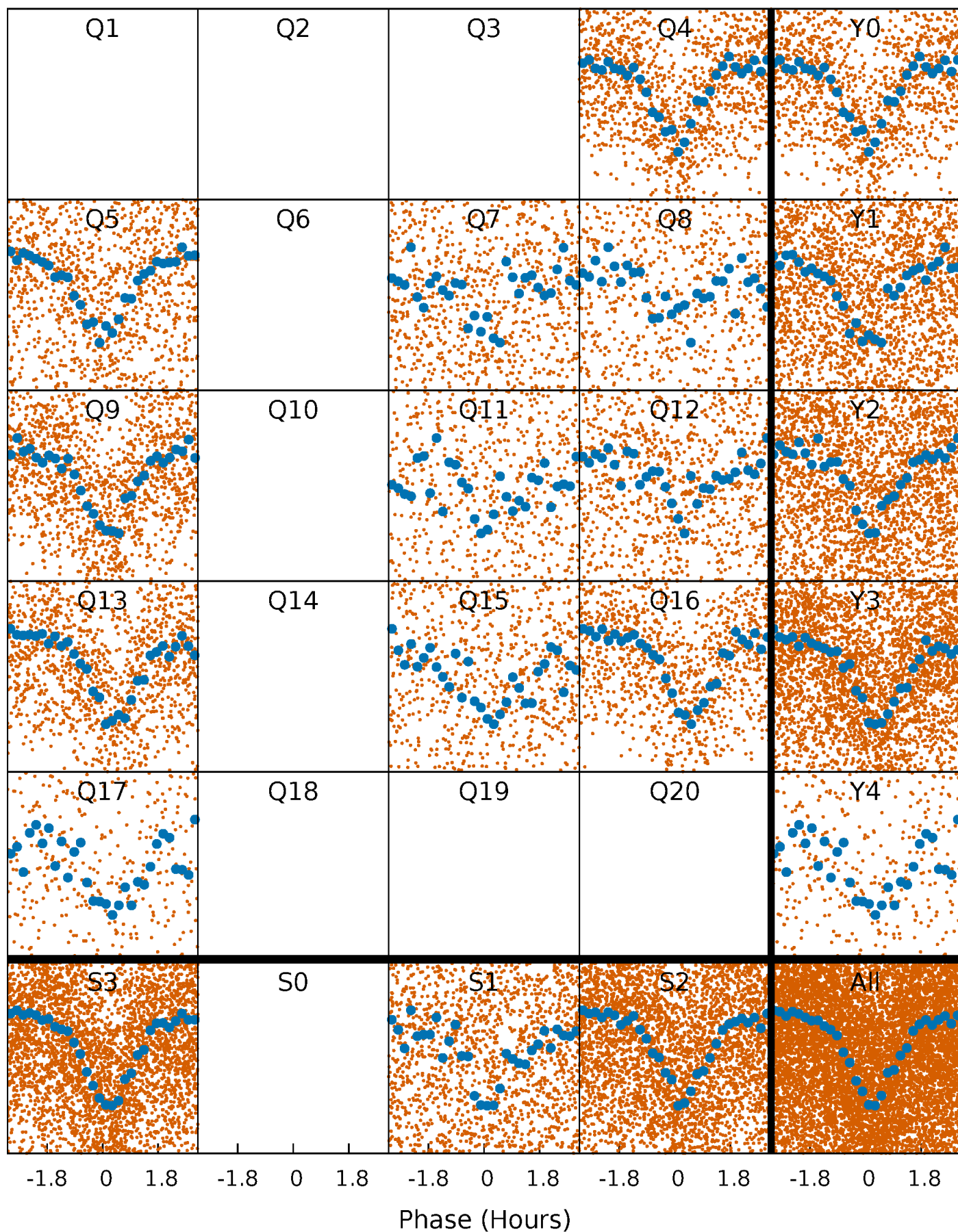
ALT Odd/Even

TCE 005024126-01



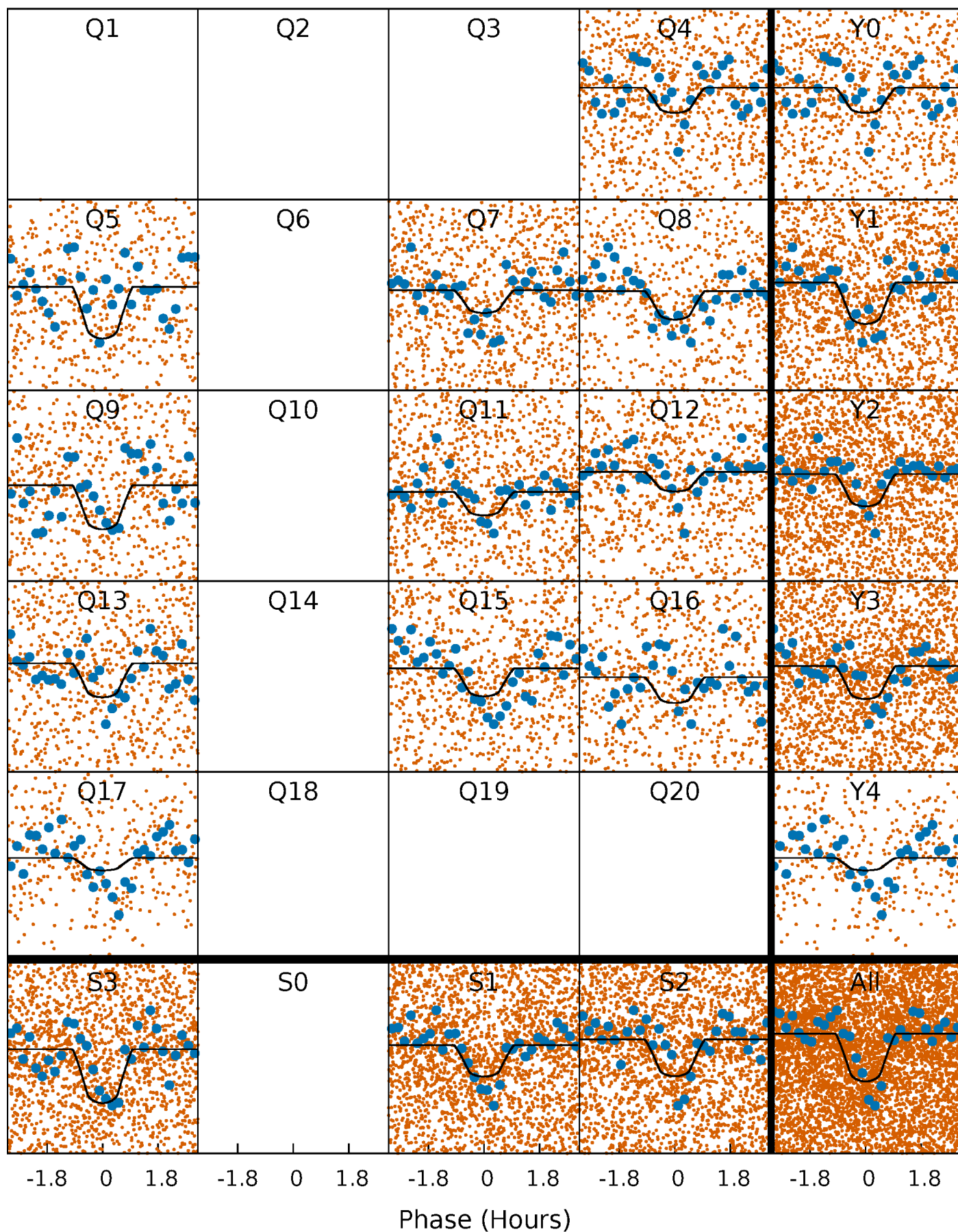
PDC Quarter-Phased Transit Curves

TCE 005024126-01 P= 0.787108 Days $T_0=131.741784$ (BKJD)



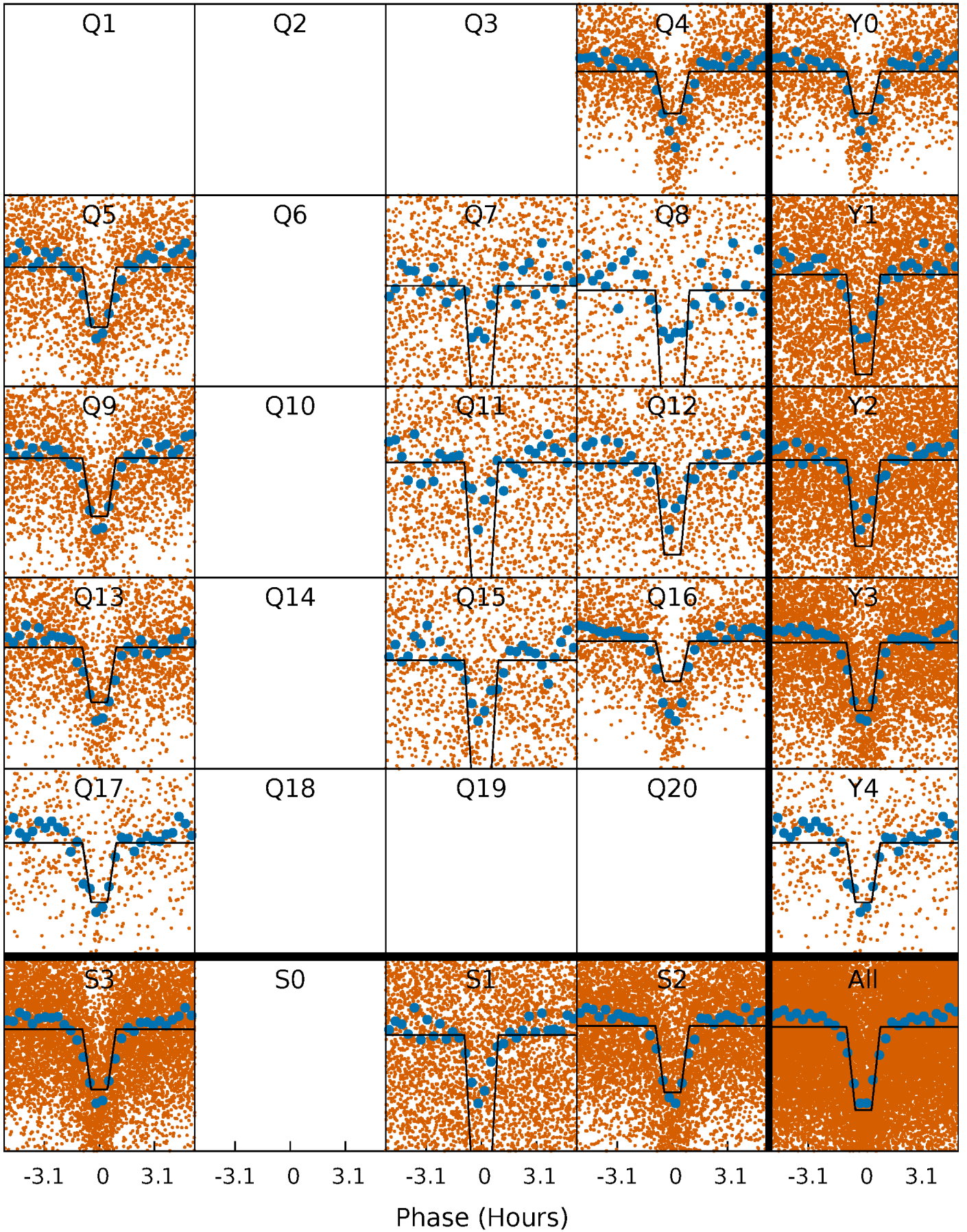
DV Quarter-Phased Transit Curves

TCE 005024126-01 P= 0.787108 Days $T_0=131.741784$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

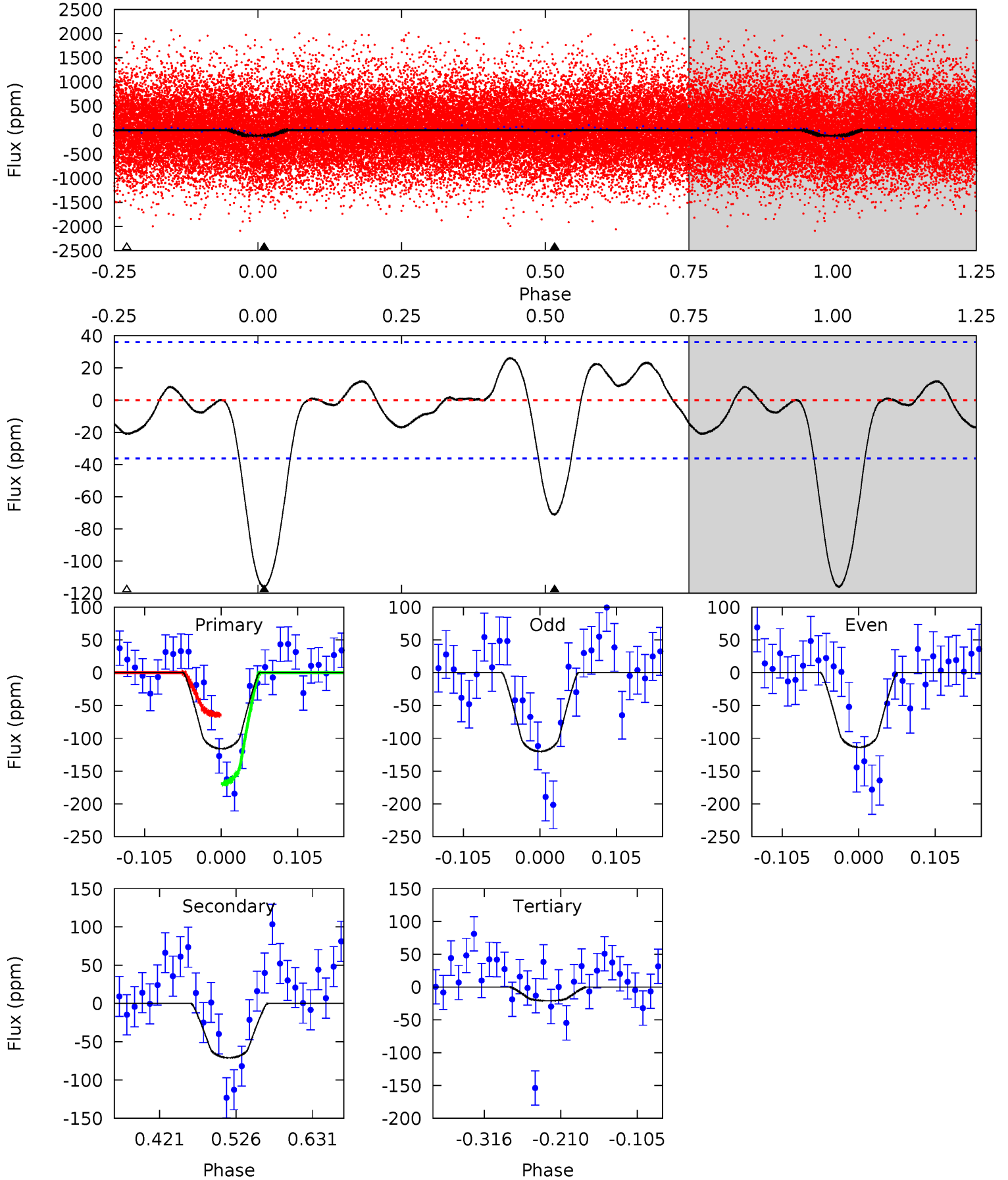
TCE 005024126-01 P= 0.787124 Days $T_0=131.735042$ (BKJD)



DV Model-Shift Uniqueness Test

005024126-01, P = 0.787108 Days, E = 131.741784 Days

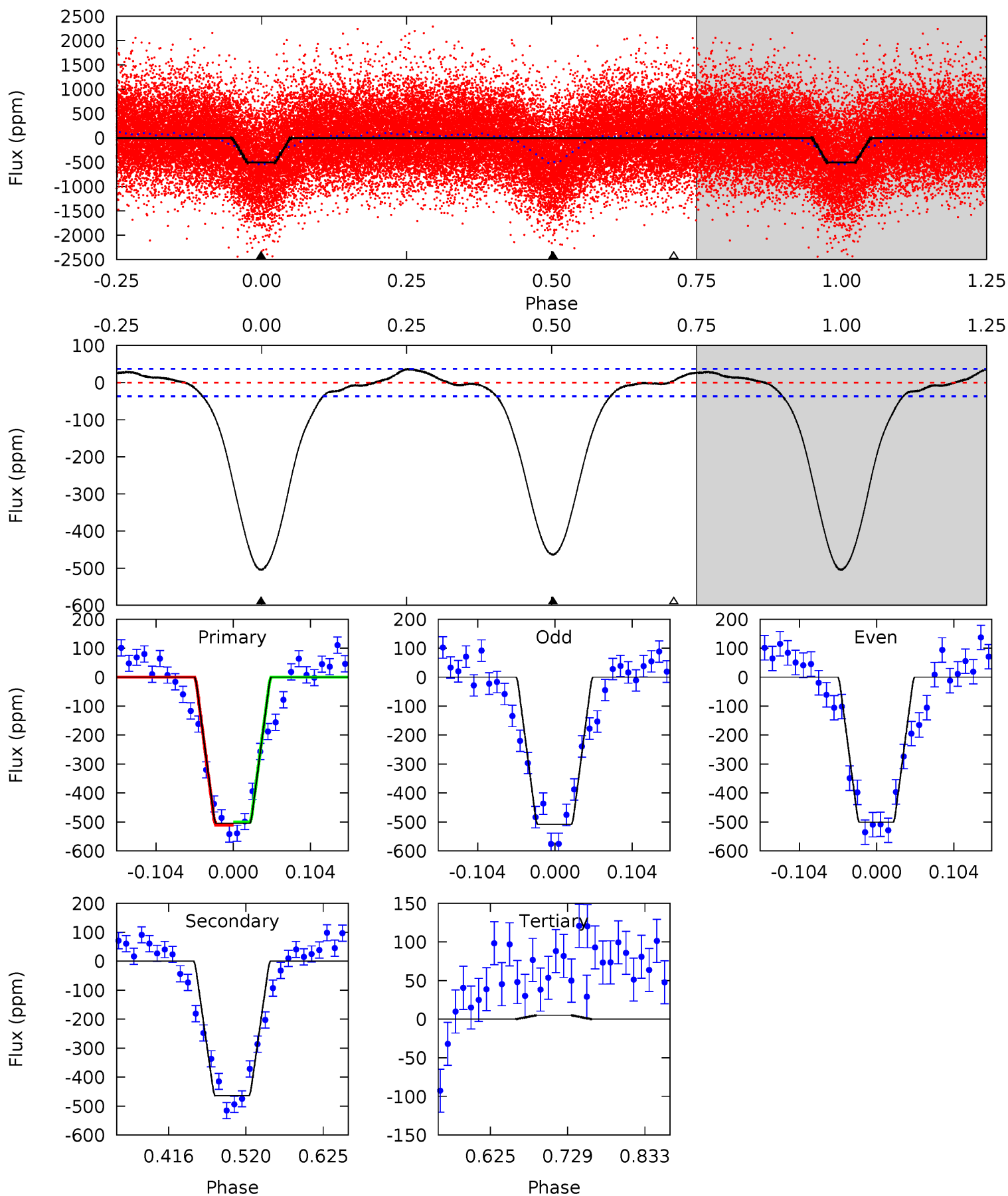
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.6	8.94	2.64	0	4.55	1.62	1.37	11.9	14.6	6.30	8.94	0.39	0.91	0.18	6.59



Alt Model-Shift Uniqueness Test

005024126-01, P = 0.787124 Days, E = 131.735042 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
62.2	57.1	-0.61	0	4.56	1.63	2.07	62.8	62.2	57.8	57.1	0.43	1.01	0.07	0.65



Stellar Parameters For KIC 005024126

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5210^{+203}_{-166}	$4.528^{+0.067}_{-0.082}$	$-0.120^{+0.300}_{-0.300}$	$0.799^{+0.112}_{-0.084}$	$0.786^{+0.103}_{-0.069}$	$2.169^{+0.673}_{-0.563}$
	+4%/-3%	+1%/-2%	+250%/-250%	+14%/-11%	+13%/-9%	+31%/-26%
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 005024126-01 / KOI 6493.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-71 ± 8	$1.27^{+0.90}_{-0.78}$	2324^{+118}_{-98}	4185^{+2458}_{-757}	$6.001^{+33.975}_{-4.030}$
Alt.	-464 ± 8	$2.11^{+0.91}_{-0.88}$	2315^{+116}_{-92}	4947^{+1425}_{-671}	14^{+27}_{-7}

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

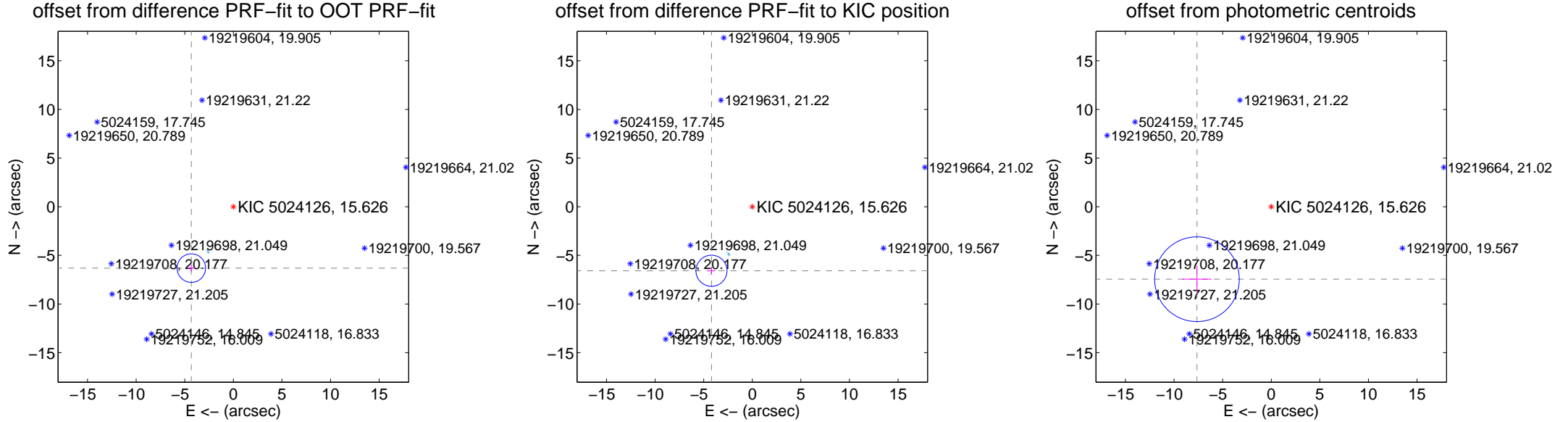
DV Centroid Data

Supplemental centroid analysis for 005024126-01. Kepler magnitude: 15.63. Transit SNR 10.55

There are 8 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.35 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	7.646 \pm 0.488	15.66	4.322 \pm 0.332	-6.308 \pm 0.370
PRF-fit source offset from KIC position	7.806 \pm 0.533	14.66	4.199 \pm 0.365	-6.580 \pm 0.405
photometric centroid source offset	10.67 \pm 1.45	7.35	7.64 \pm 1.52	-7.45 \pm 1.38



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 are from the UKIRT catalog.

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

Q1 no difference image



Q1 no OOT image



Q2 no difference image



Q2 no OOT image



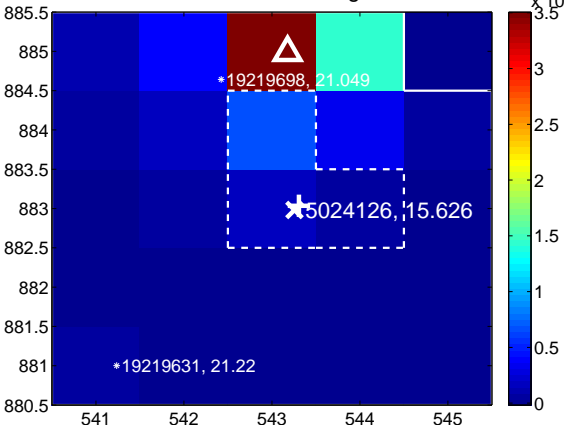
Q3 no difference image



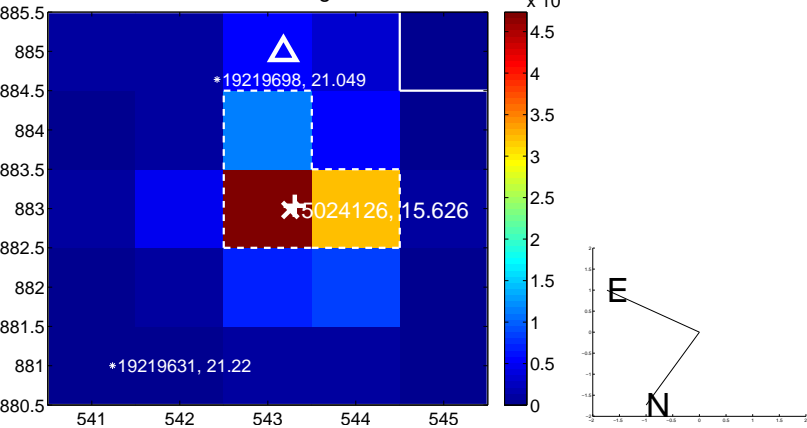
Q3 no OOT image



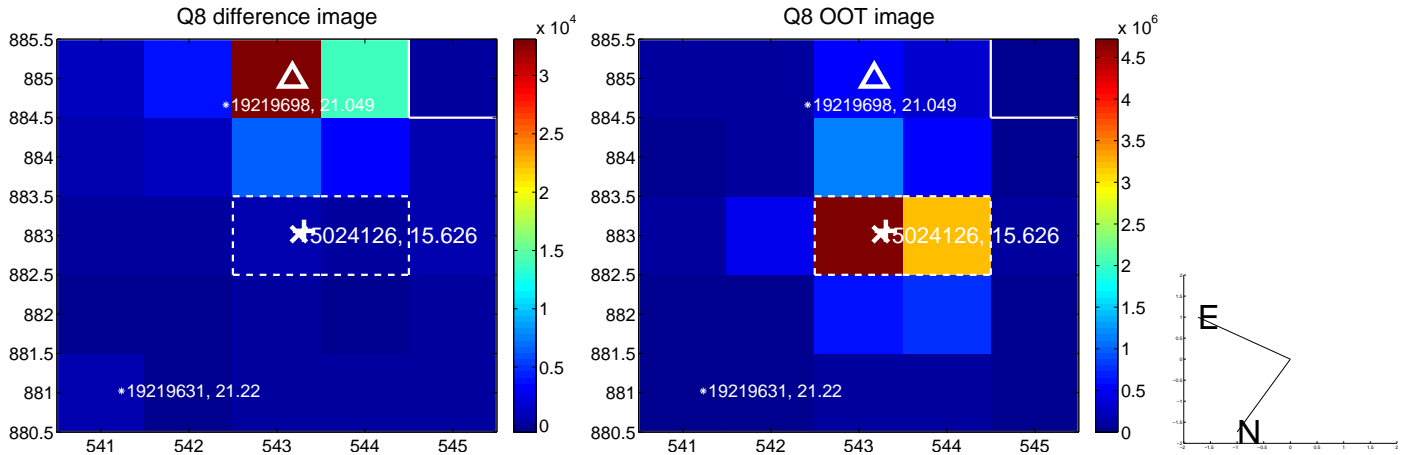
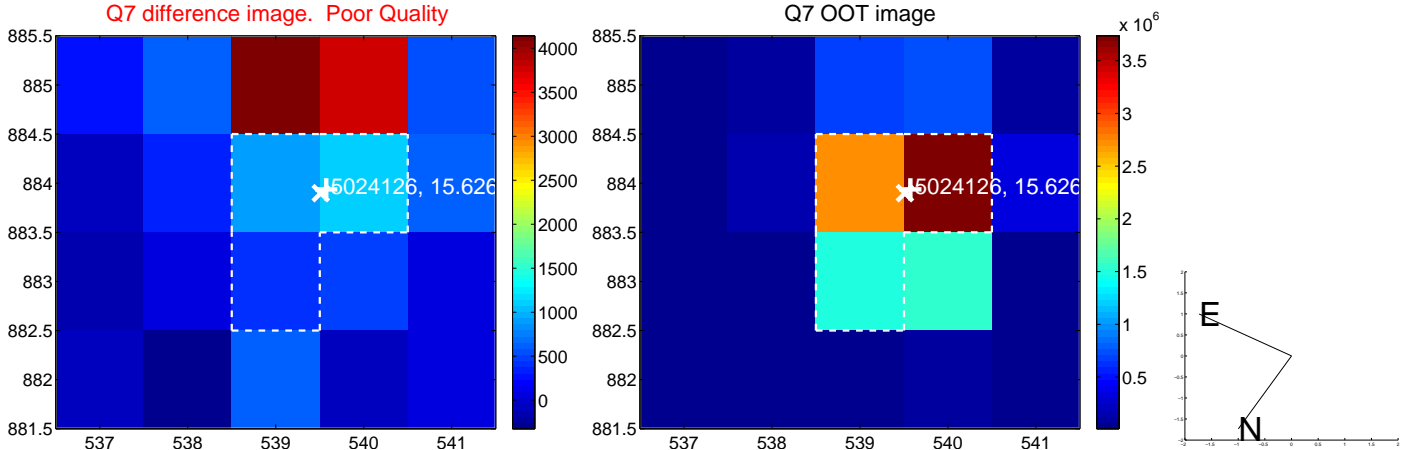
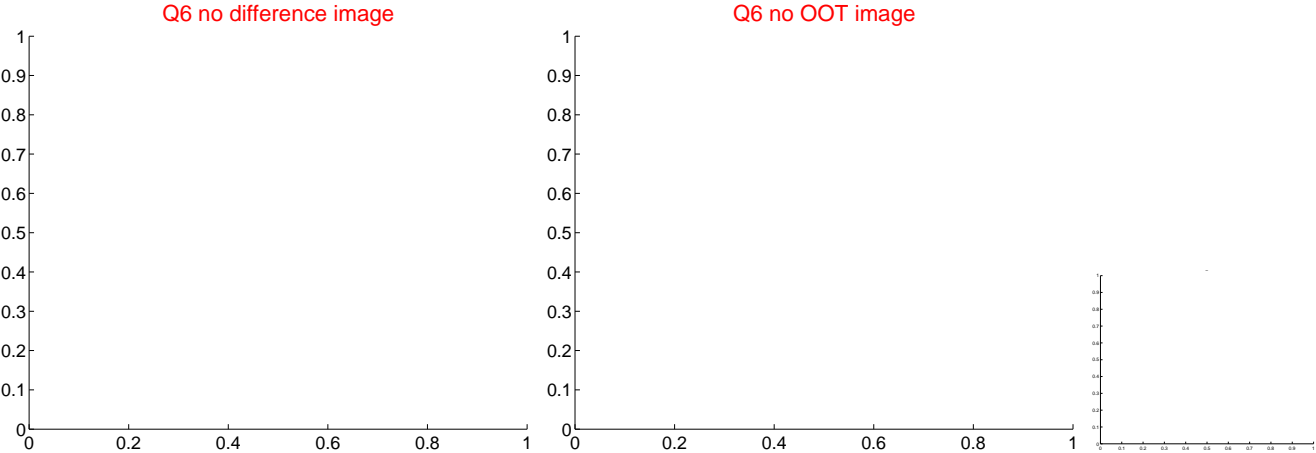
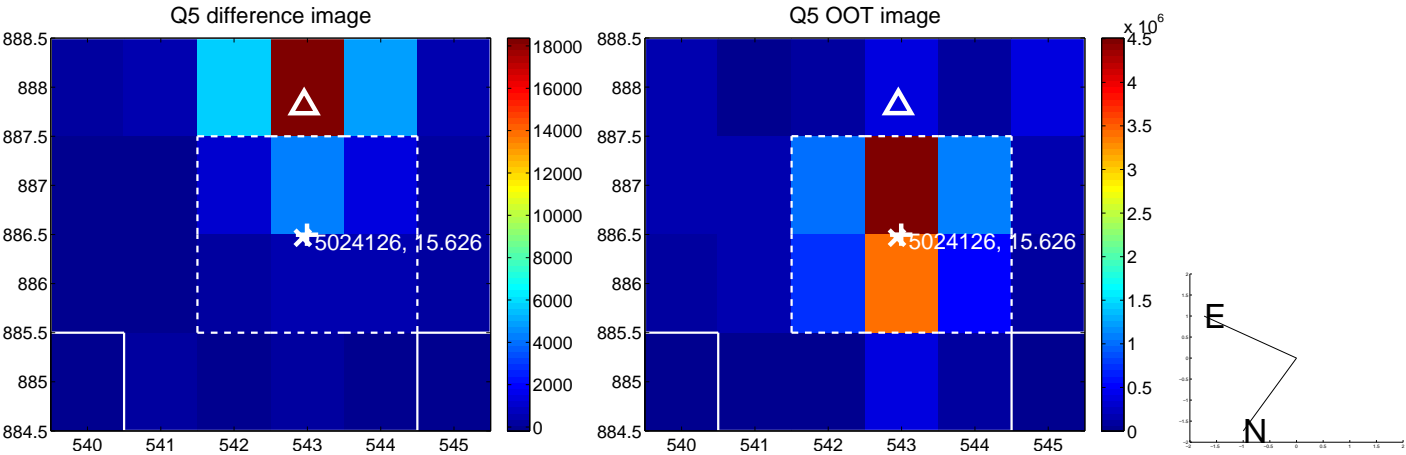
Q4 difference image



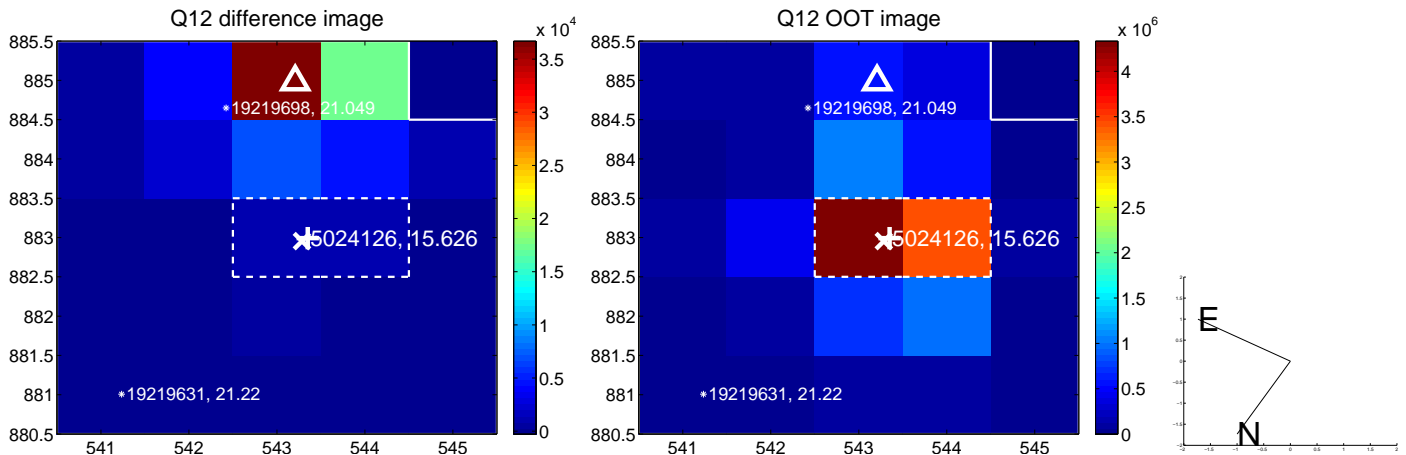
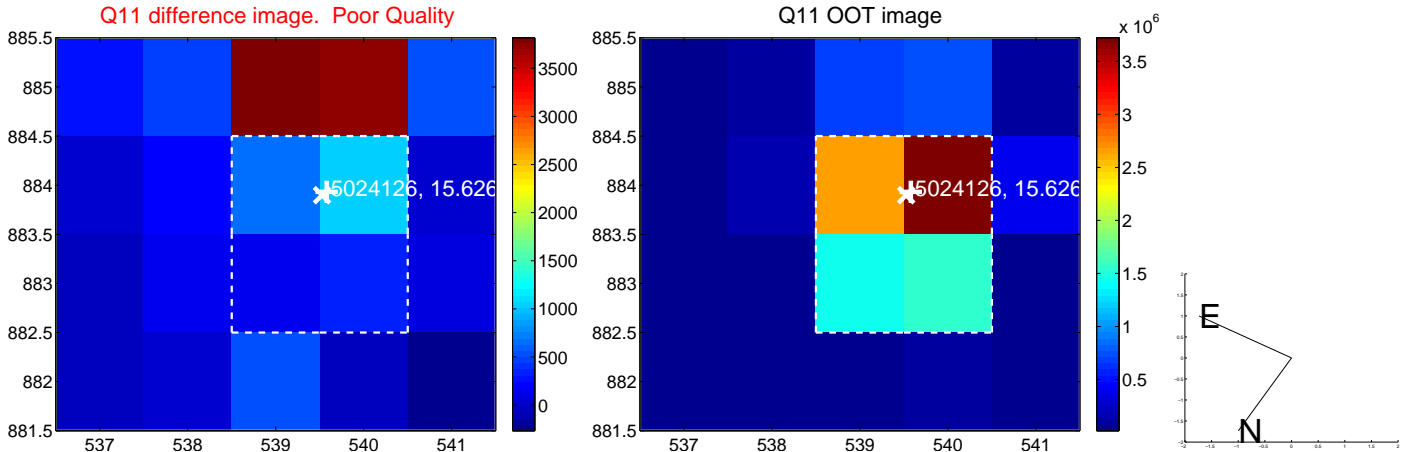
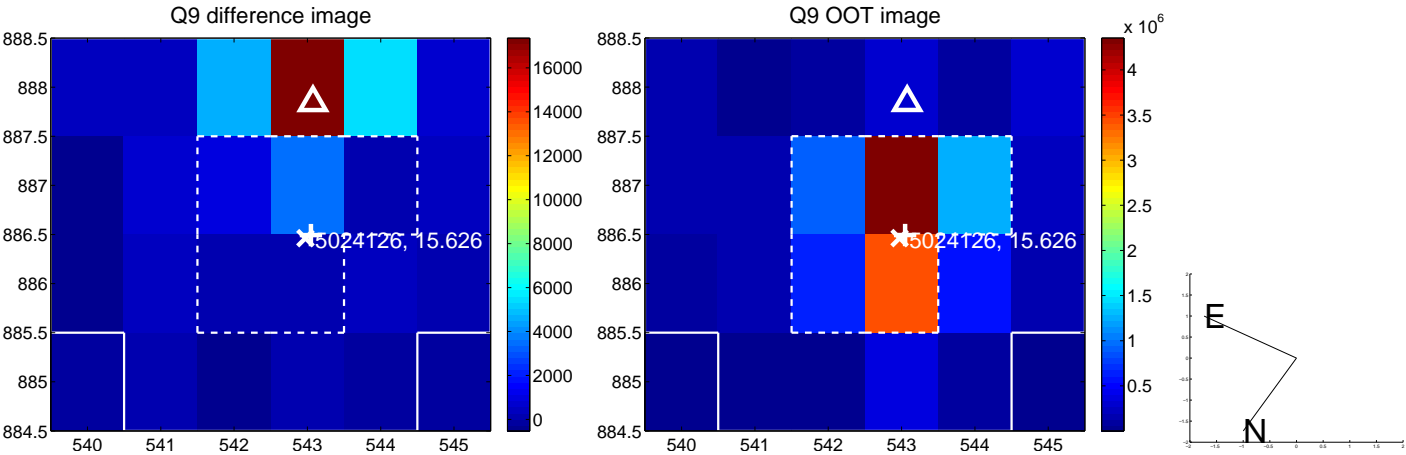
Q4 OOT image



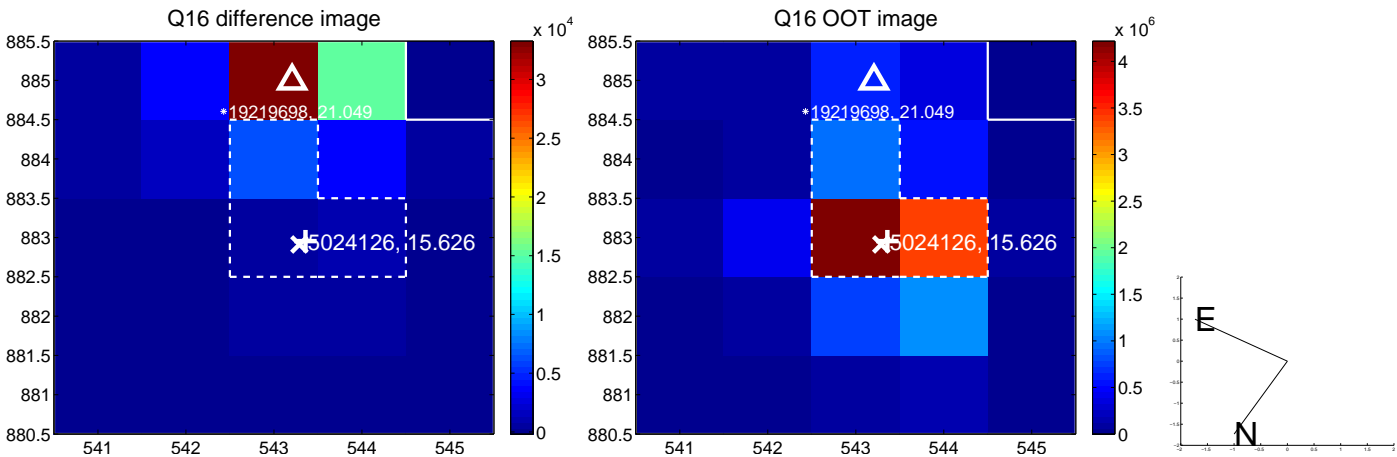
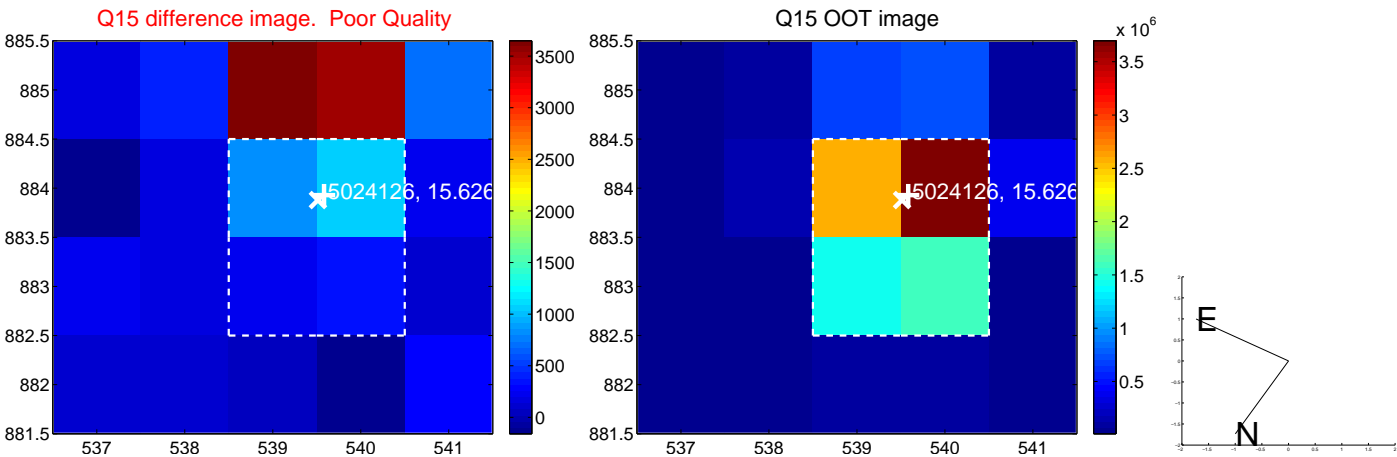
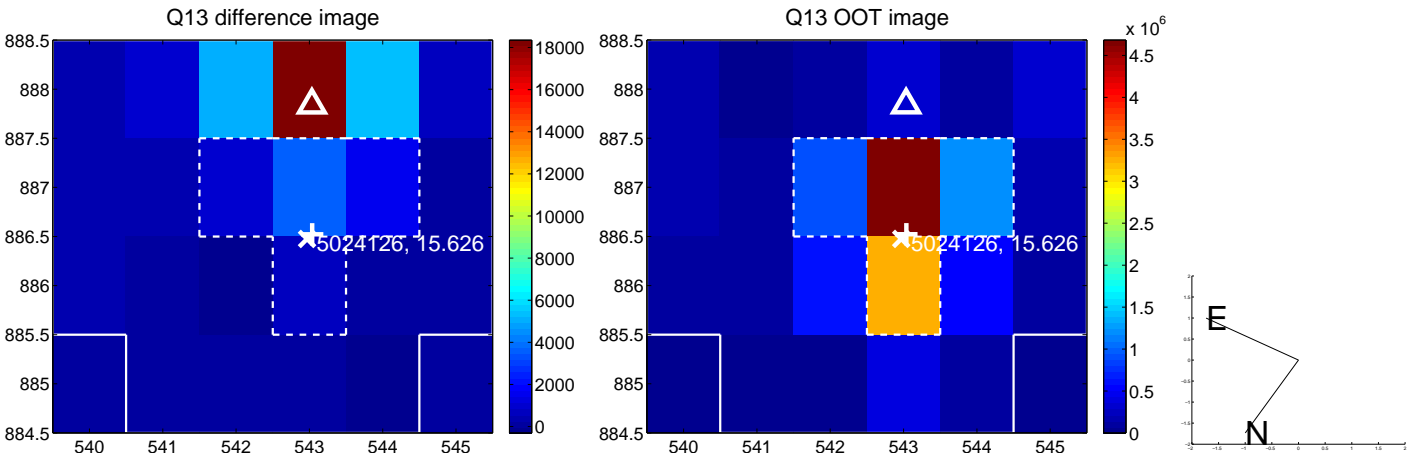
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



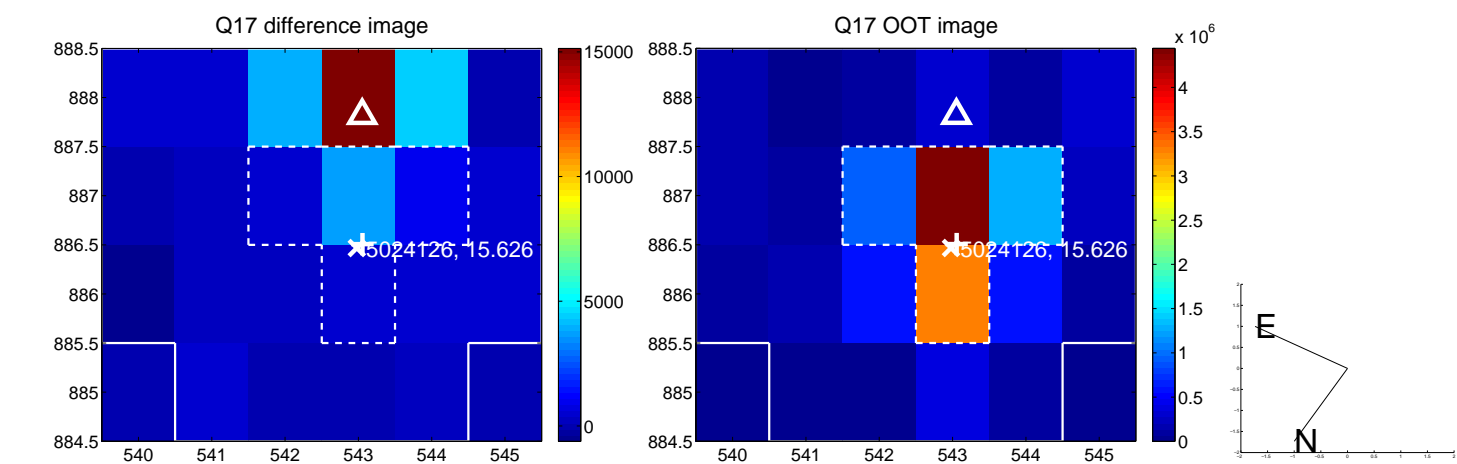
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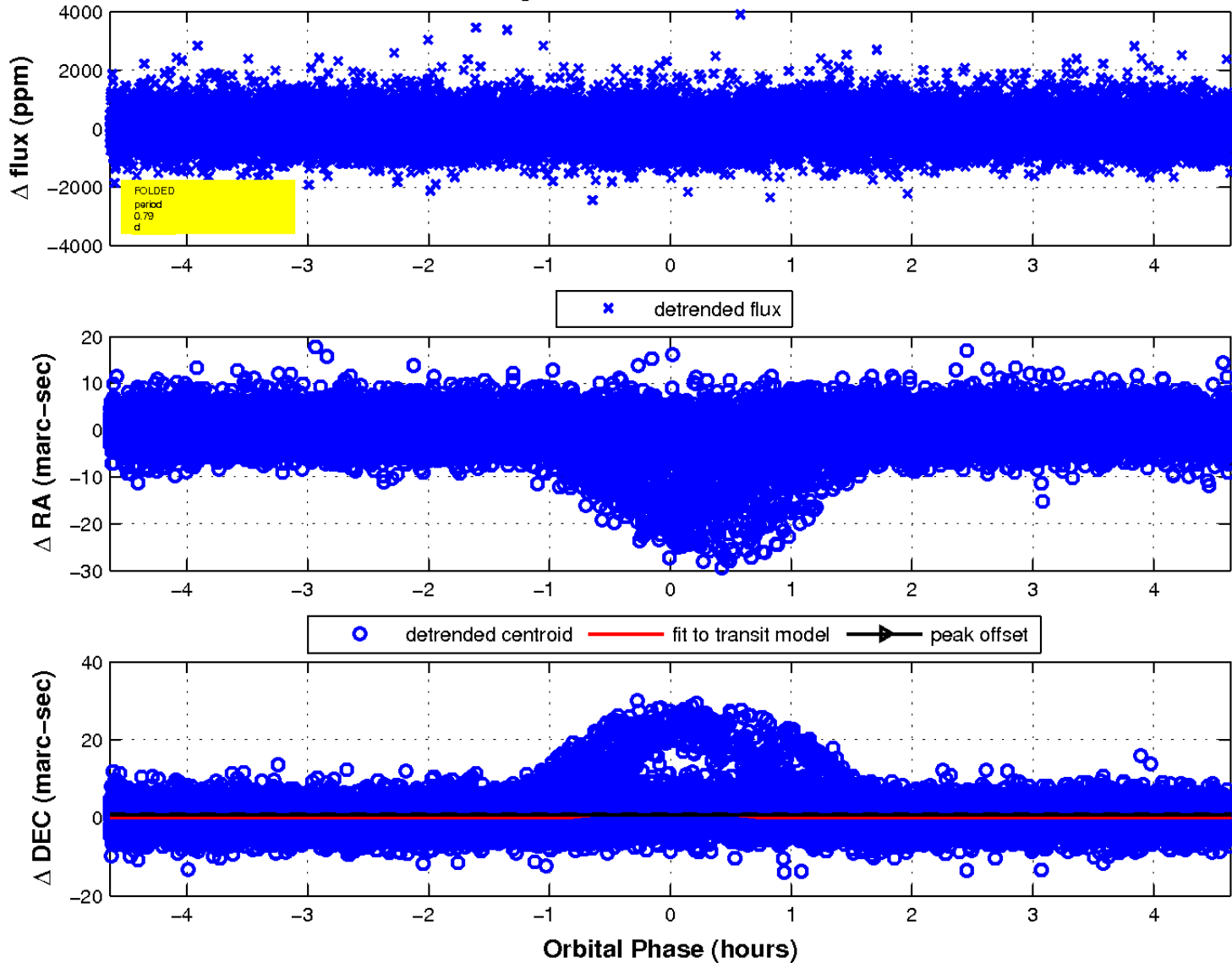
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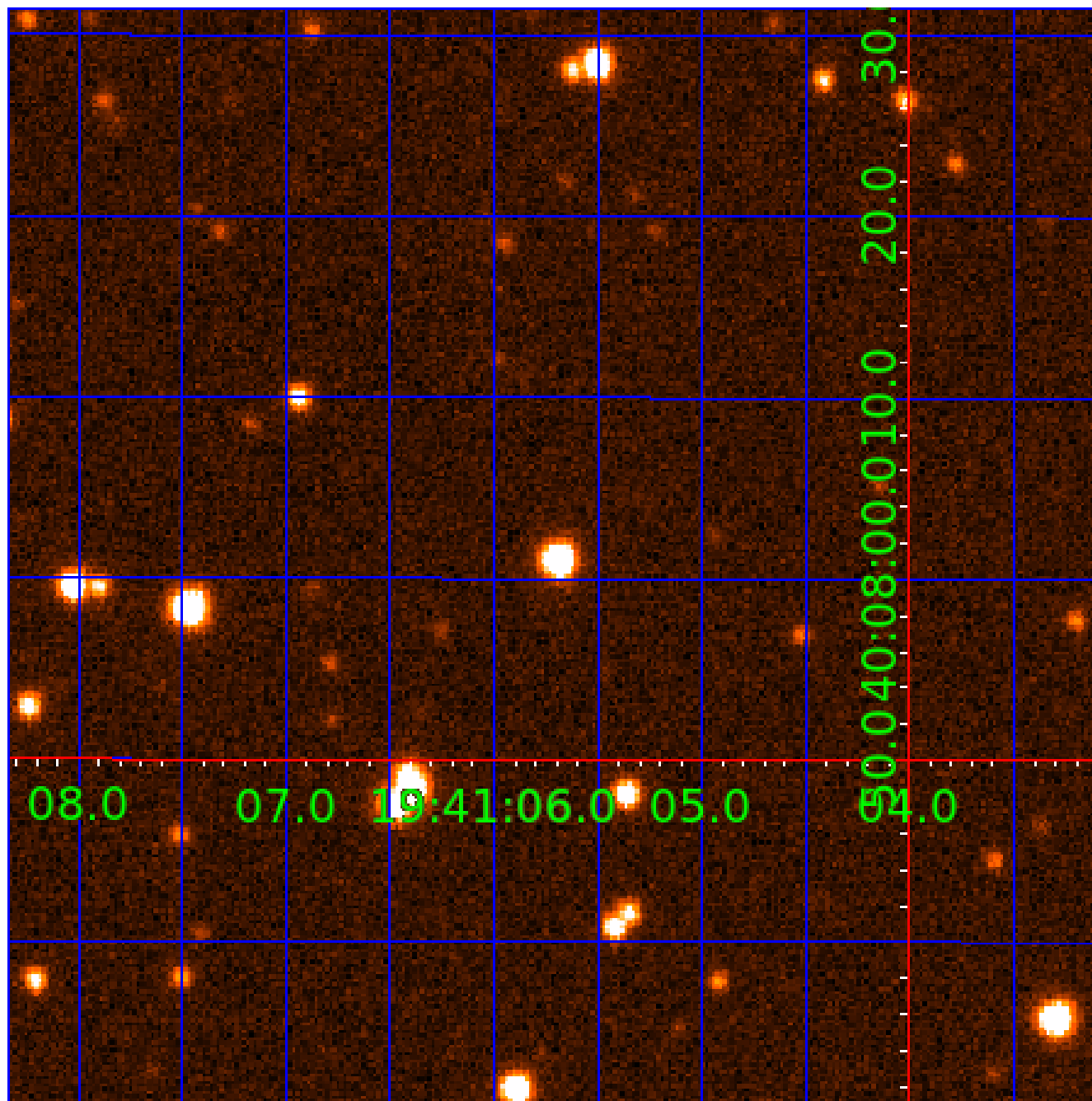


fluxWeightedCentroids, Planet 1 of 5



UKIRT Image

Declination



KIC 005024126

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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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
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005024126-02	OBS	FP	0.00	1	1	1	0	IS_SEC_TCE—CENT_RESOLVED_OFFSET
005024126-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
005024126-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS

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.

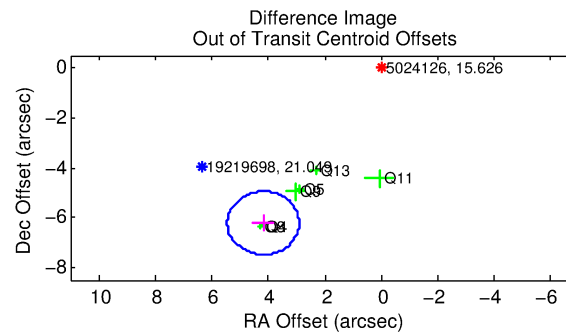
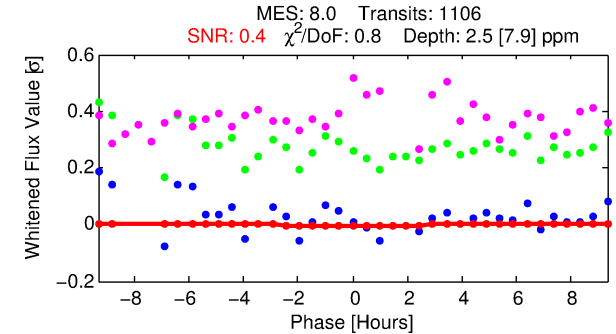
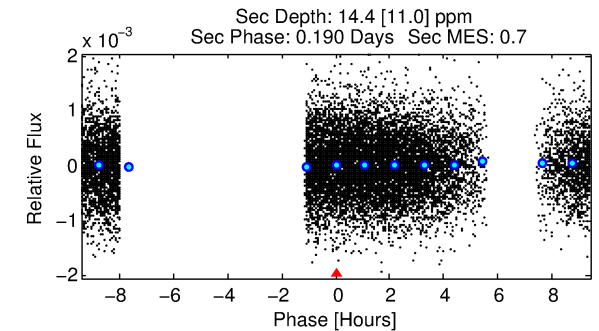
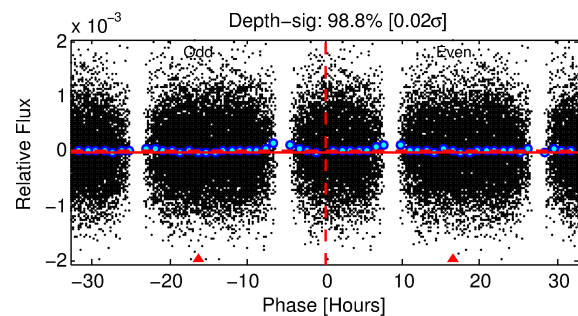
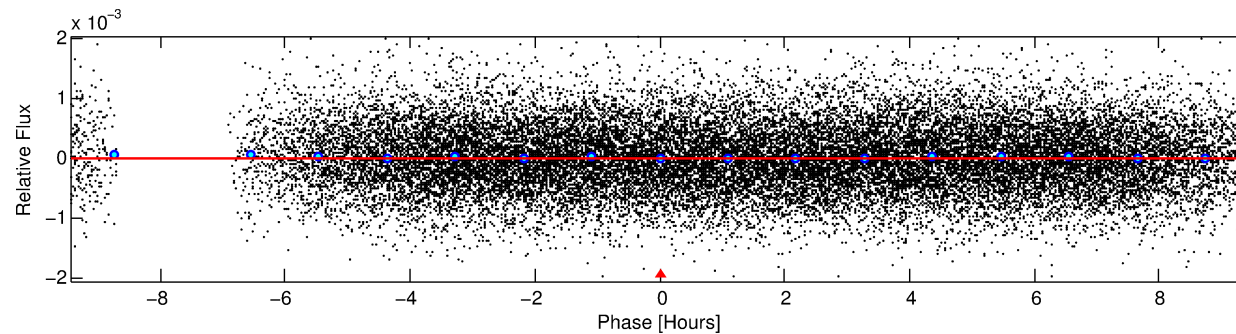
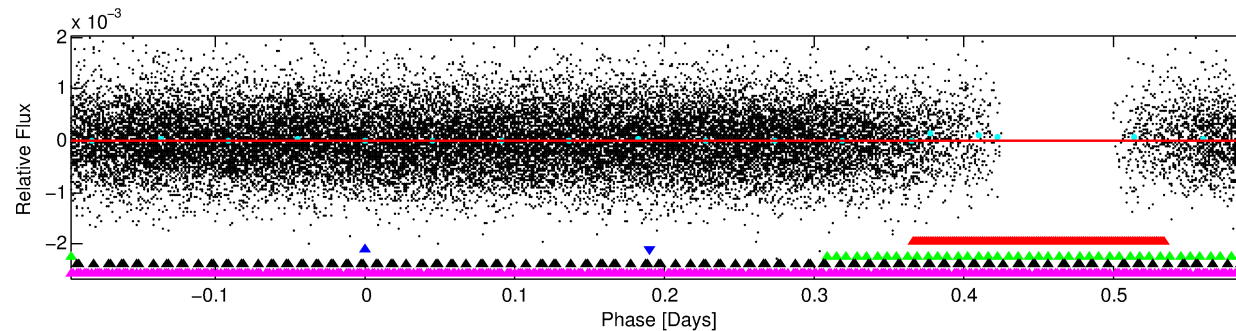
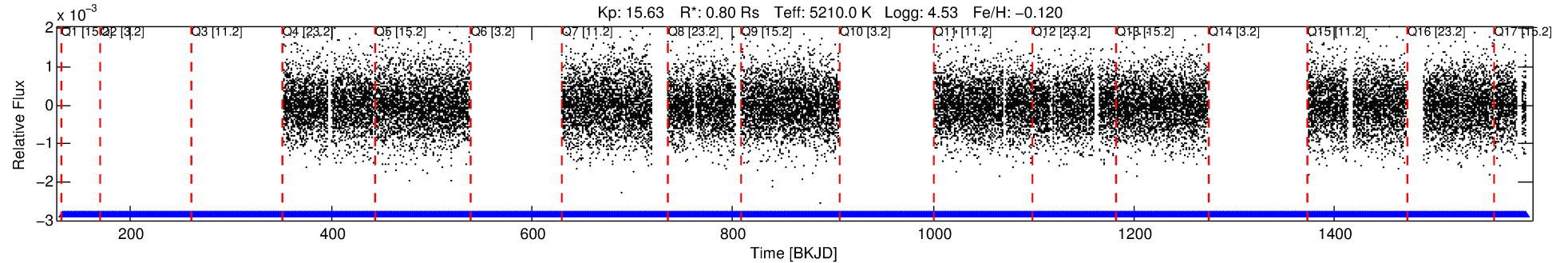
Ephemeris Match Information For 005024126-02

No Significant Match Found

DV One-Page Summary

KIC: 5024126 Candidate: 2 of 5 Period: 0.787 d
KOI: K06493 Corr: No Ephemeris Match

Kp: 15.63 R*: 0.80 Rs Teff: 5210.0 K Logg: 4.53 Fe/H: -0.120



DV Fit Results:

Period = 0.78702 [0.00030] d
Epoch = 132.1625 [0.1539] BKJD
Rp/R* = 0.0014 [0.0334]
a/R* = 1.26 [39.84]
b = 0.24 [349.10]
Seff = 1778.13 [393.08]
Teq = 1656 [92] K
Rp = 0.13 [2.91] Re
a = 0.0154 [0.0017] AU
Ag = 119.36 [5544.15] [0.02σ]
Teff = 8462 [98264] K [0.07σ]

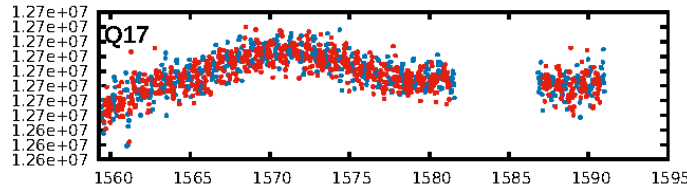
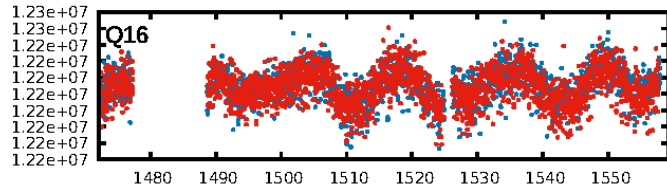
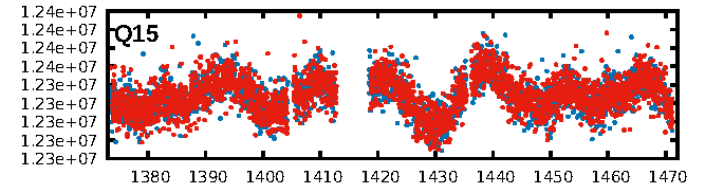
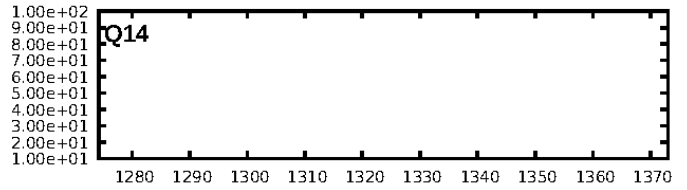
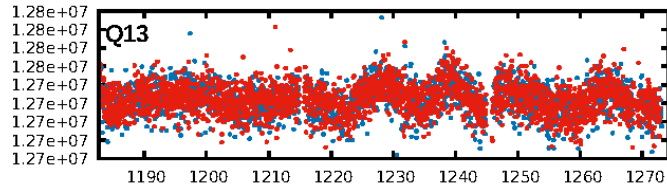
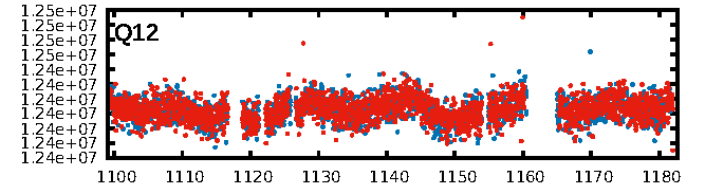
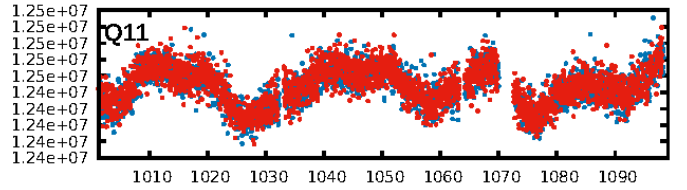
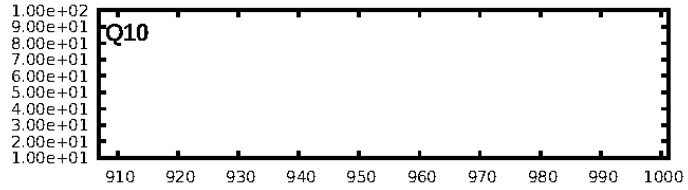
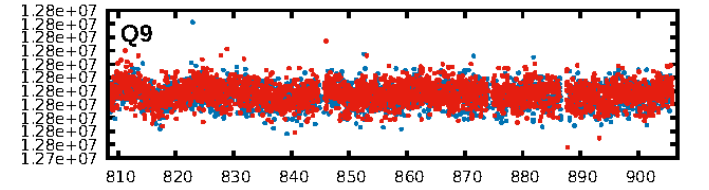
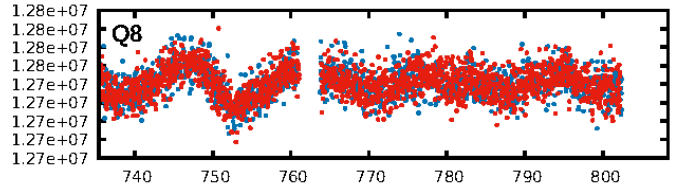
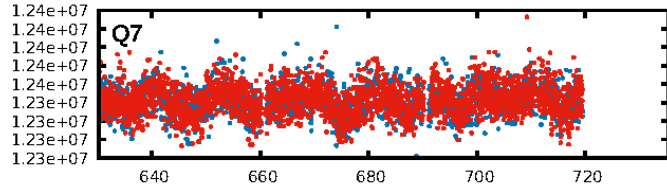
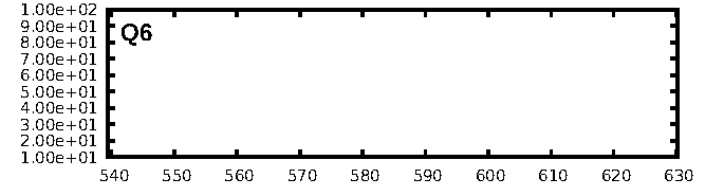
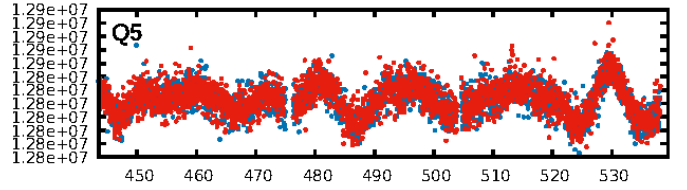
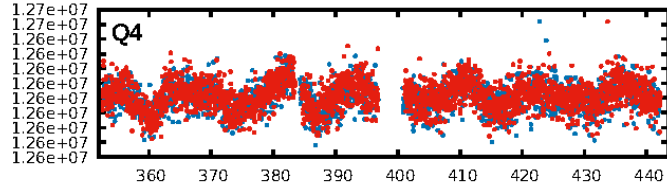
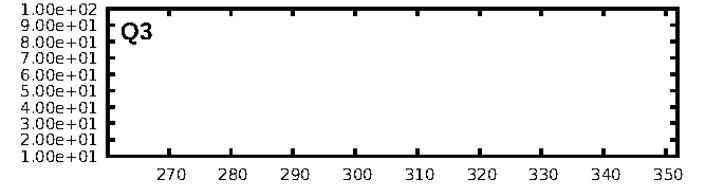
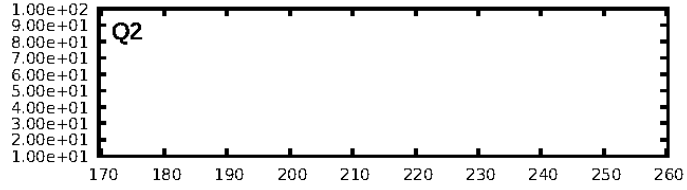
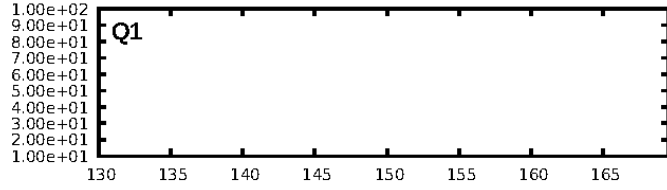
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.02e-07
RollingBand-fgt: 1.00 [1073/1073]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 7.492 arcsec [17.70σ]
KicOffset-rm: 7.682 arcsec [17.19σ]
OotOffset-st: 0/1/2/3 [6]
KicOffset-st: 0/1/2/3 [6]
DiffImageQuality-fgm: 0.67 [4/6]
DiffImageOverlap-fno: 0.00 [0/11]

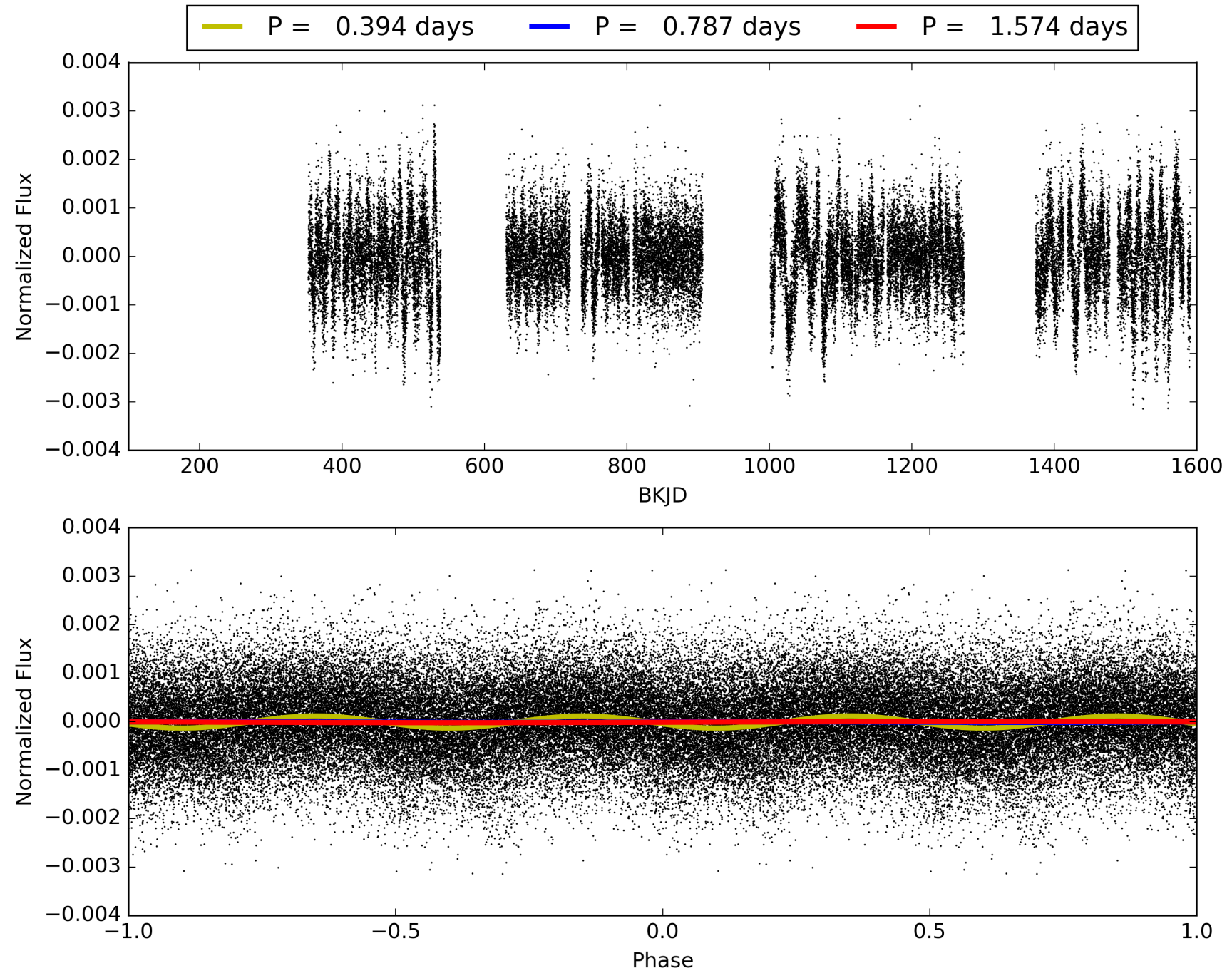
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 19:30:44 Z

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

TCE 005024126-02, PDC Light Curves

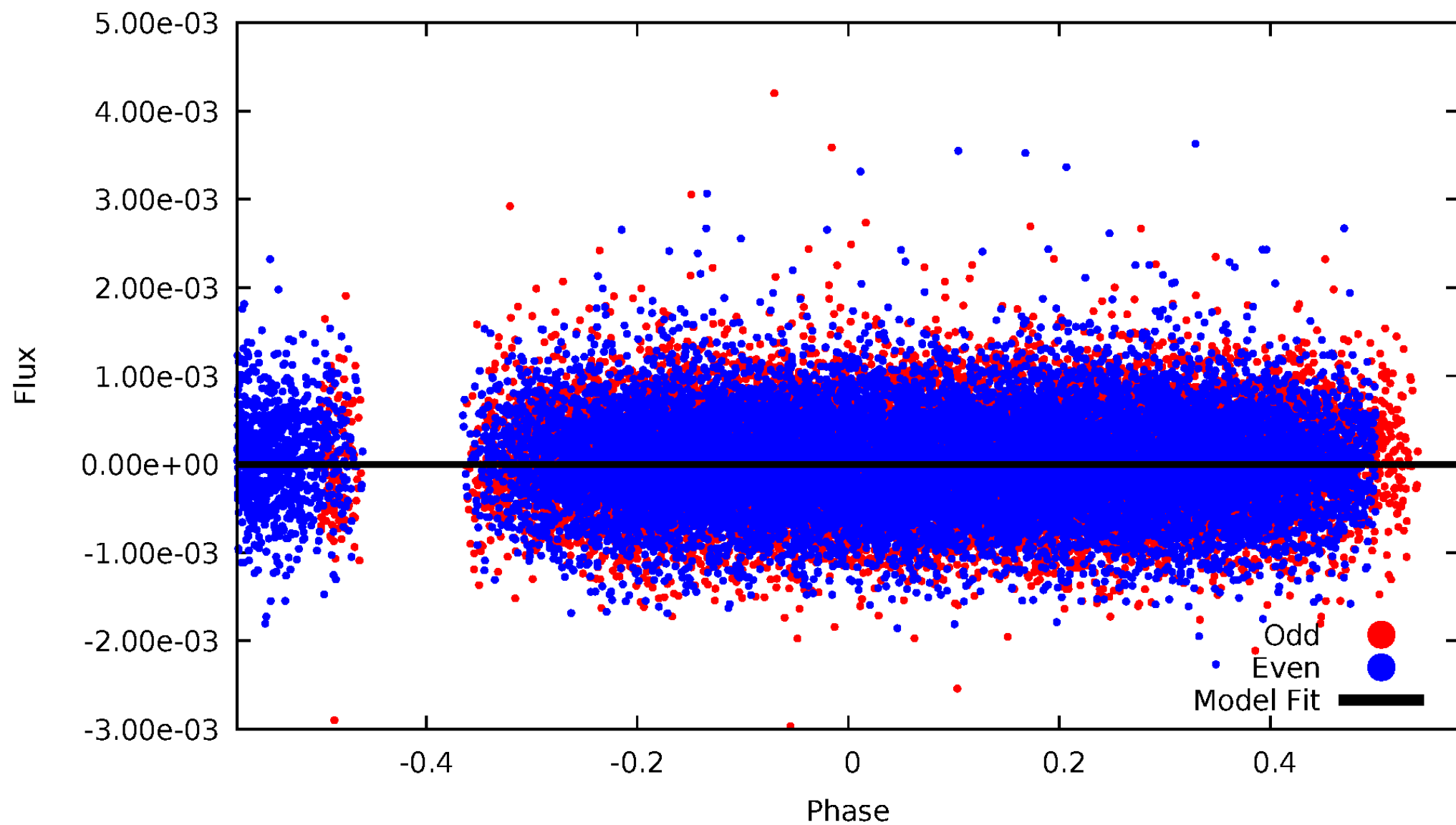


TCE 005024126-02



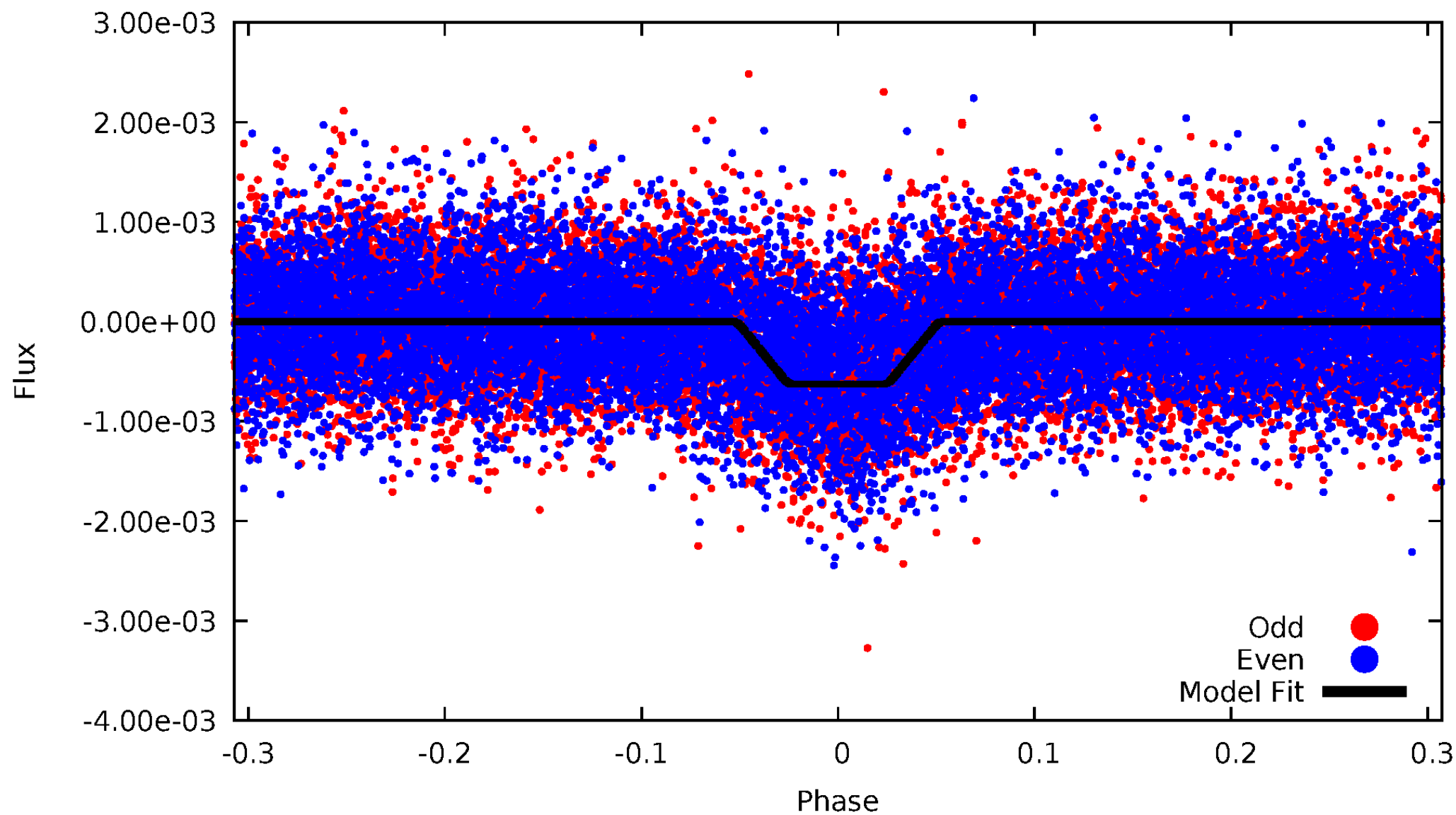
DV Odd/Even

TCE 005024126-02



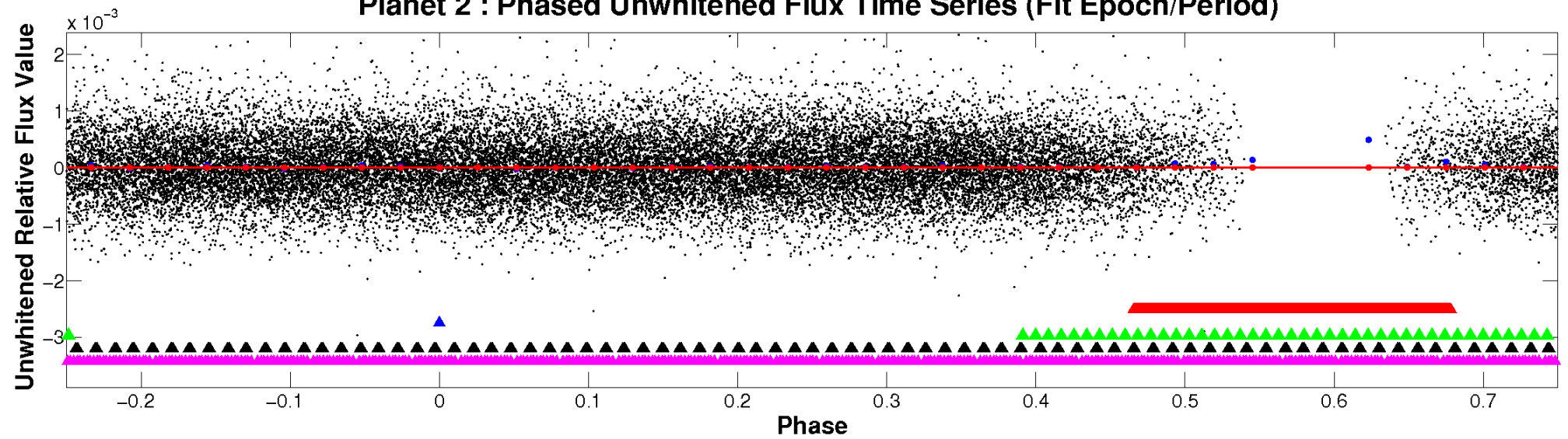
ALT Odd/Even

TCE 005024126-02

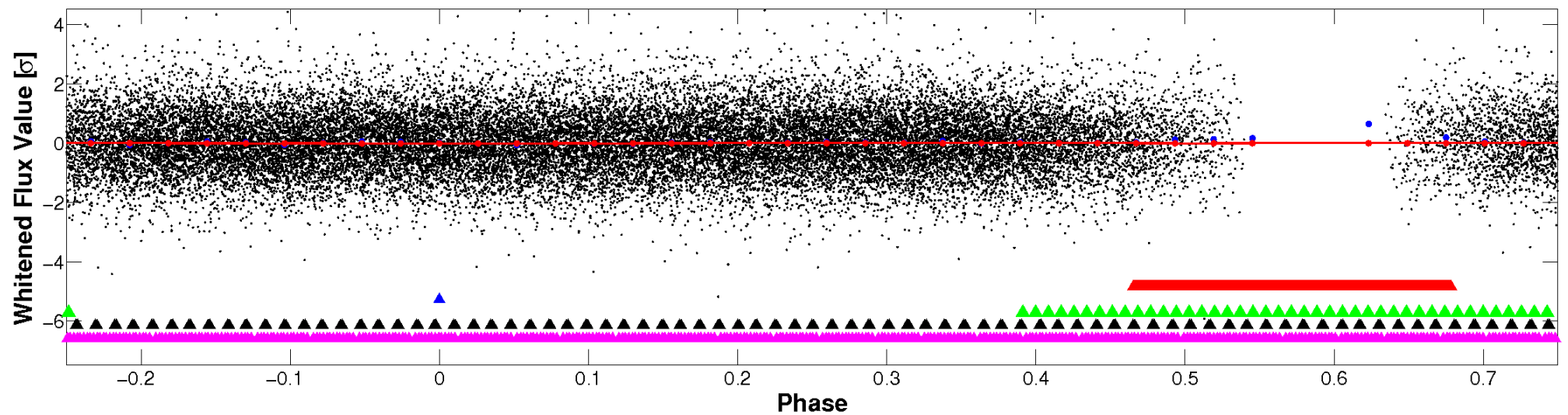


Non-Whitened Vs. Whitened Light Curve

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

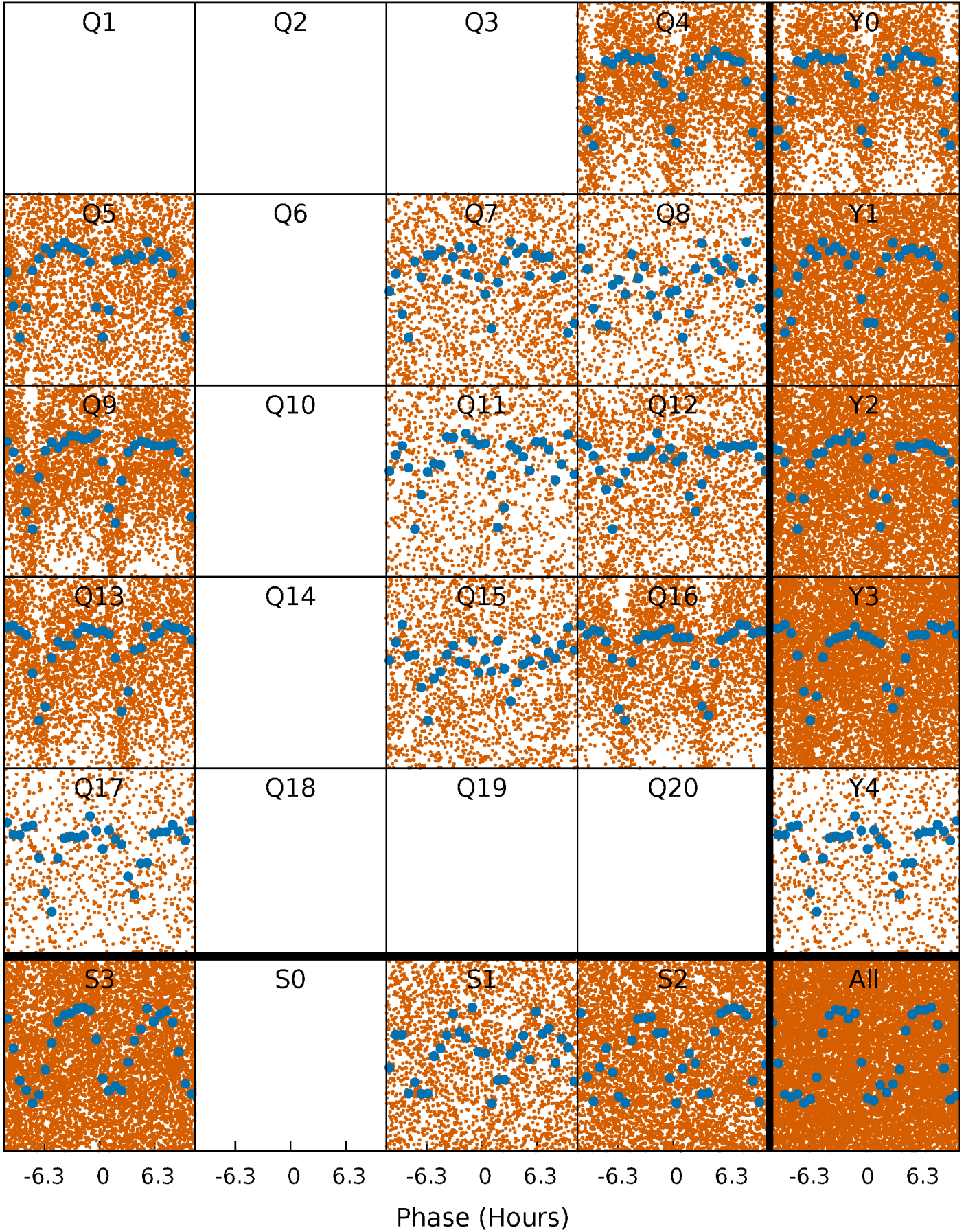


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



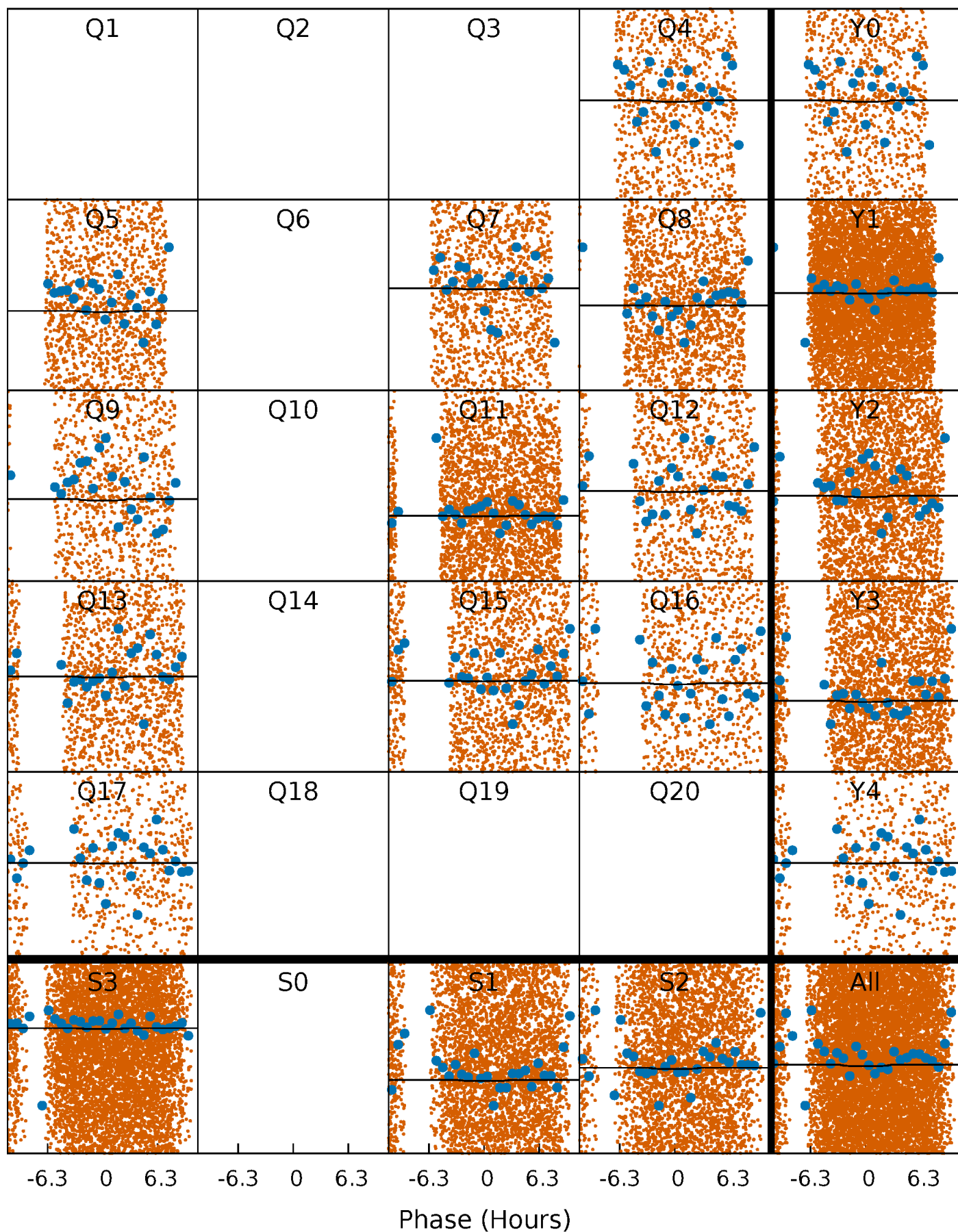
PDC Quarter-Phased Transit Curves

TCE 005024126-02 P= 0.787018 Days $T_0=132.162504$ (BKJD)



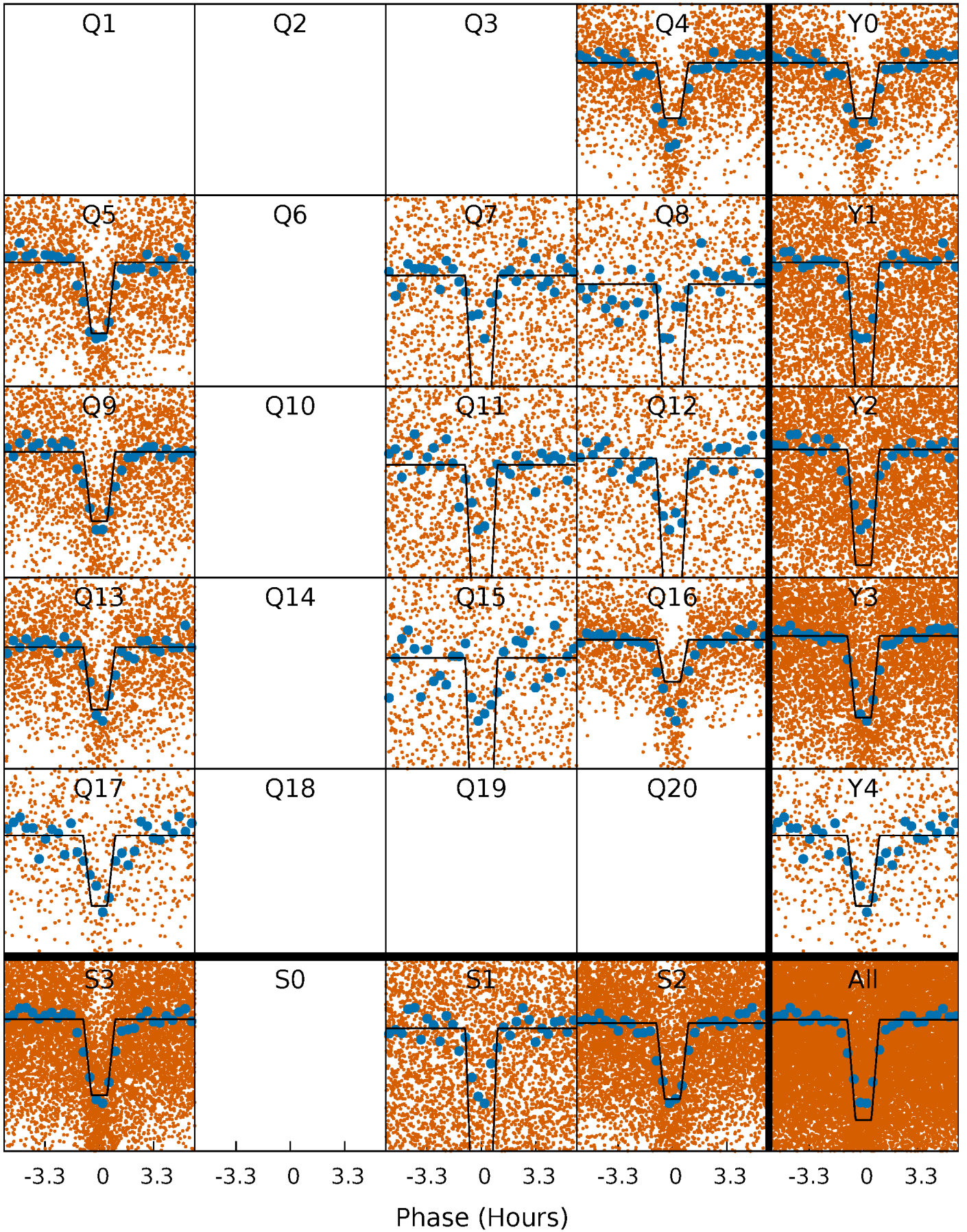
DV Quarter-Phased Transit Curves

TCE 005024126-02 P= 0.787018 Days $T_0=132.162504$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

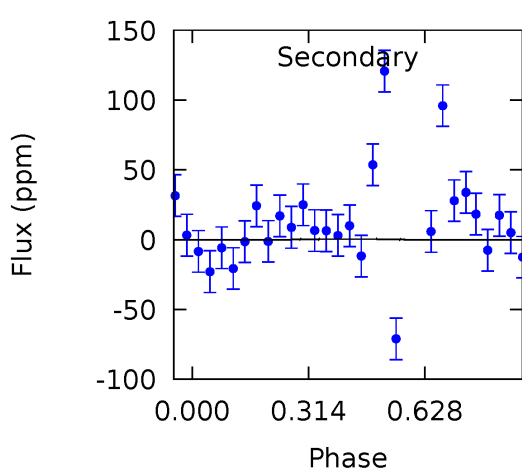
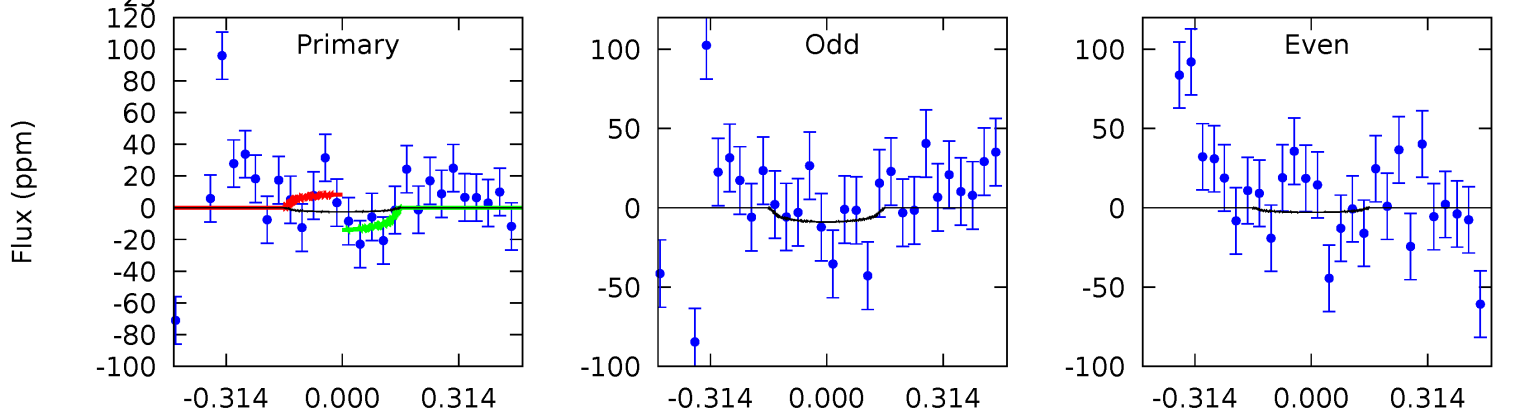
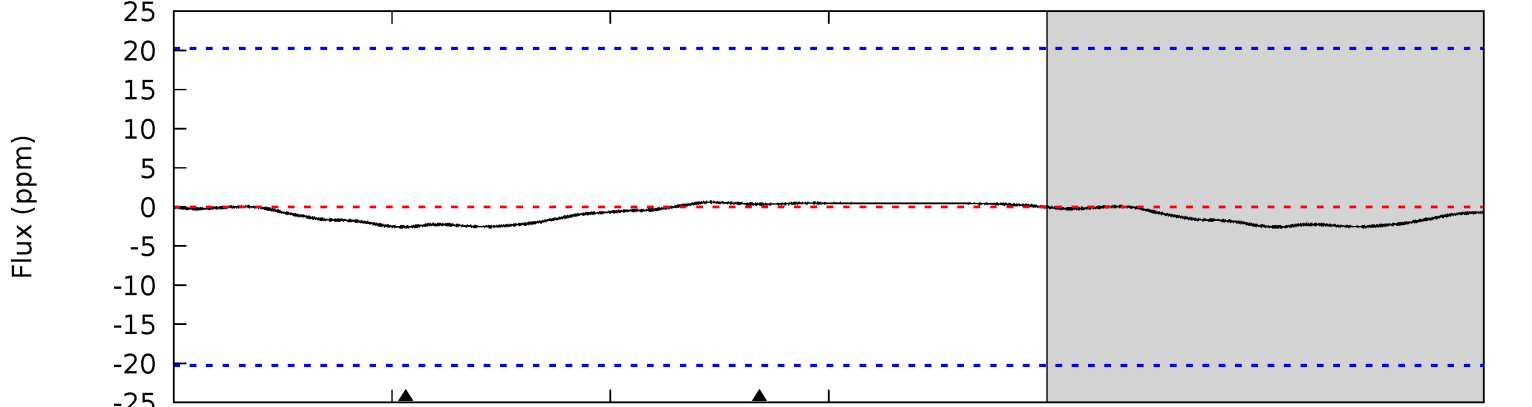
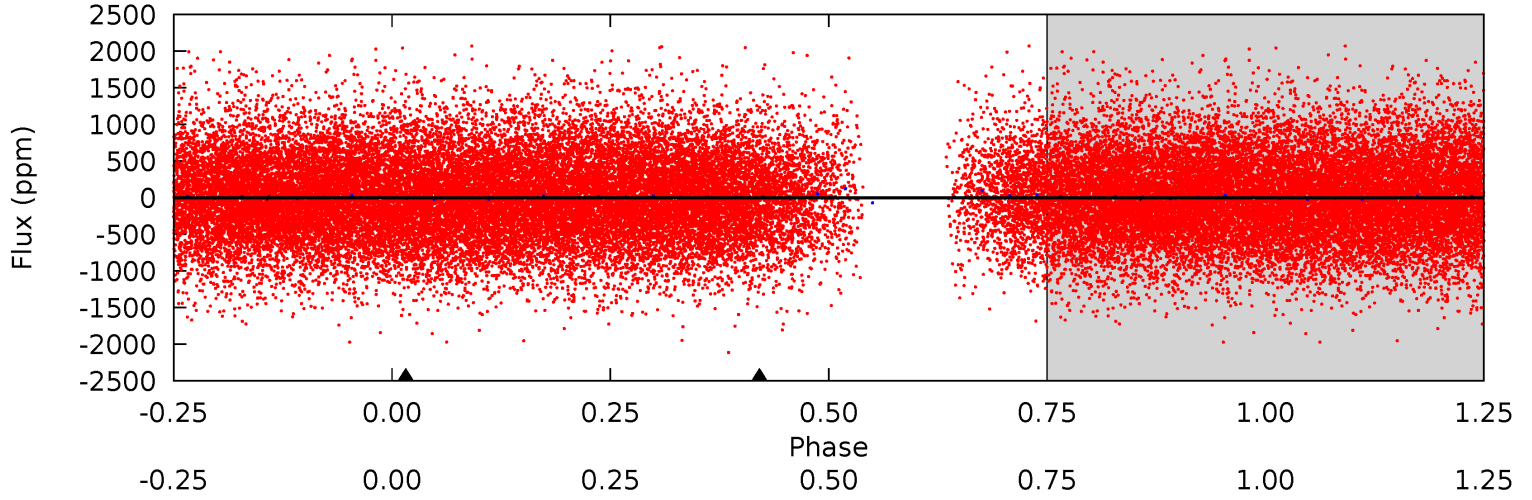
TCE 005024126-02 P= 0.787117 Days $T_0=132.136899$ (BKJD)



DV Model-Shift Uniqueness Test

005024126-02, P = 0.787018 Days, E = 132.162504 Days

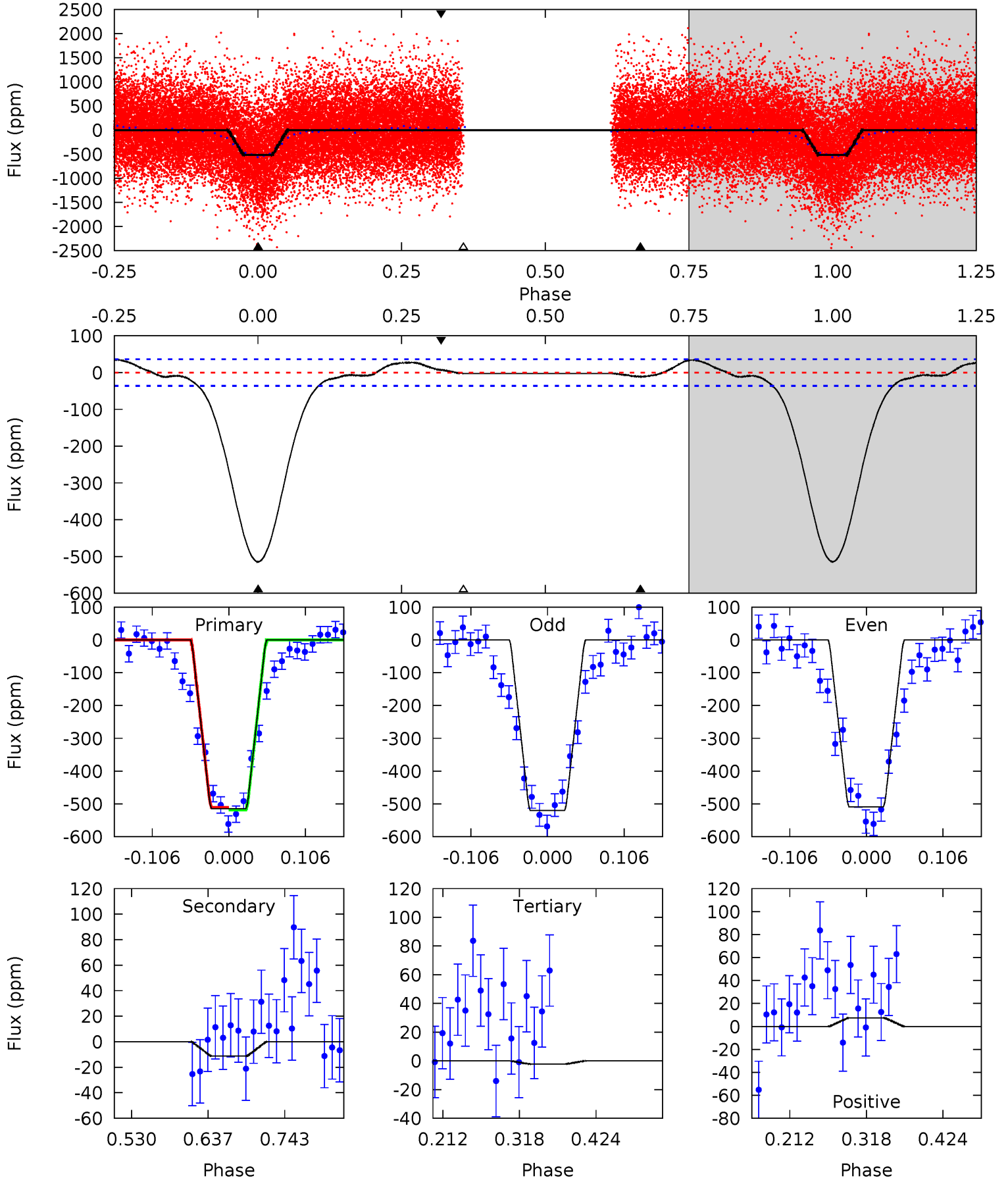
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.55	-0.07	0	0	4.32	1.01	0.05	0.55	0.55	-0.07	-0.07	0.66	5.14	0.19	0.61



Alt Model-Shift Uniqueness Test

005024126-02, P = 0.787117 Days, E = 132.136899 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
64.7	1.41	0.28	0.94	4.55	1.62	2.02	64.5	63.8	1.13	0.47	0.69	1.02	0.06	0.53



Stellar Parameters For KIC 005024126

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5210^{+203}_{-166}	$4.528^{+0.067}_{-0.082}$	$-0.120^{+0.300}_{-0.300}$	$0.799^{+0.112}_{-0.084}$	$0.786^{+0.103}_{-0.069}$	$2.169^{+0.673}_{-0.563}$
	+4%/-3%	+1%/-2%	+250%/-250%	+14%/-11%	+13%/-9%	+31%/-26%
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 005024126-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 5	$1.94^{+2.28}_{-1.33}$	2328^{+104}_{-108}	-2692^{+480}_{-359}	$-0.004^{+0.235}_{-0.393}$
Alt.	-11 ± 8	$2.96^{+2.83}_{-1.86}$	2323^{+107}_{-95}	-2459^{+5495}_{-204}	$0.139^{+0.931}_{-0.117}$

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 $A_{obs} \gg 1.0$

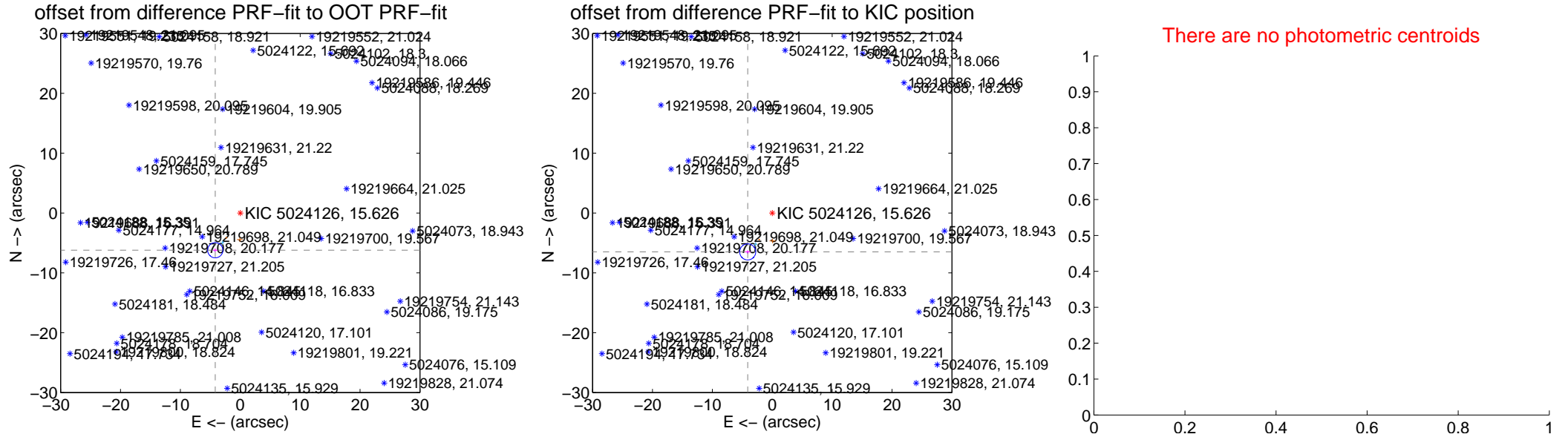
DV Centroid Data

Supplemental centroid analysis for 005024126-02. Kepler magnitude: 15.63. Transit SNR 0.40

There are 4 quarters with good PRF difference image offsets

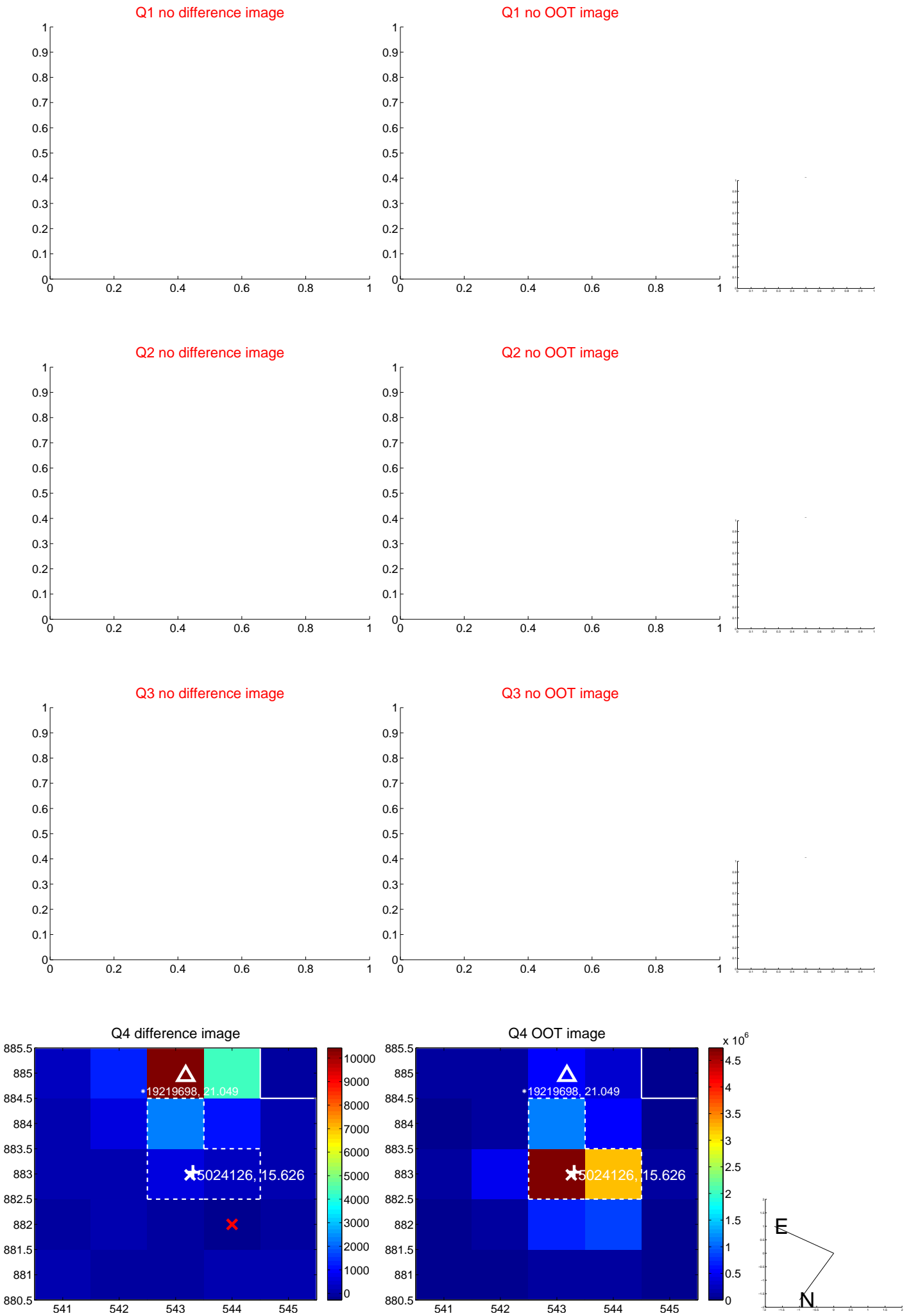
The direct PRF centroid is offset from the target star catalog position by about 0.34 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	7.492 \pm 0.423	17.70	4.179 \pm 0.384	-6.218 \pm 0.299
PRF-fit source offset from KIC position	7.682 \pm 0.447	17.19	4.099 \pm 0.477	-6.497 \pm 0.293
photometric centroid source offset	—	—	—	—

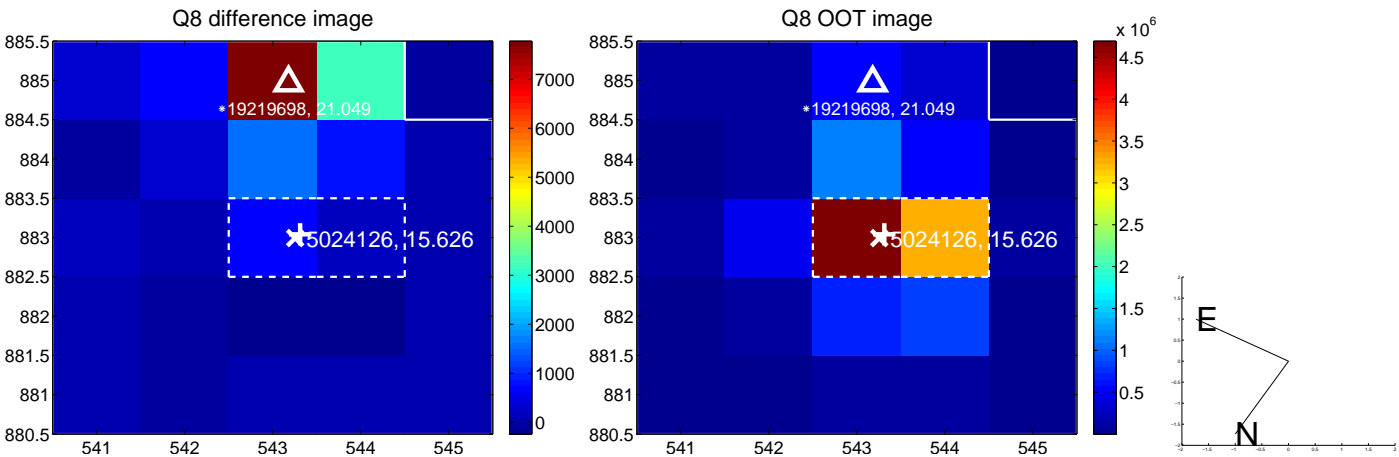
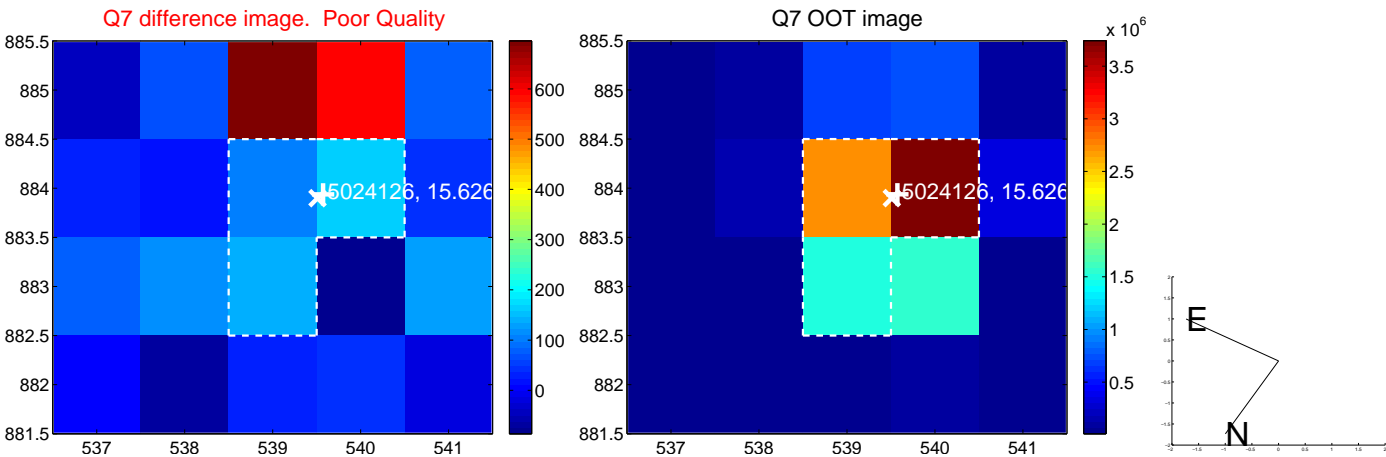
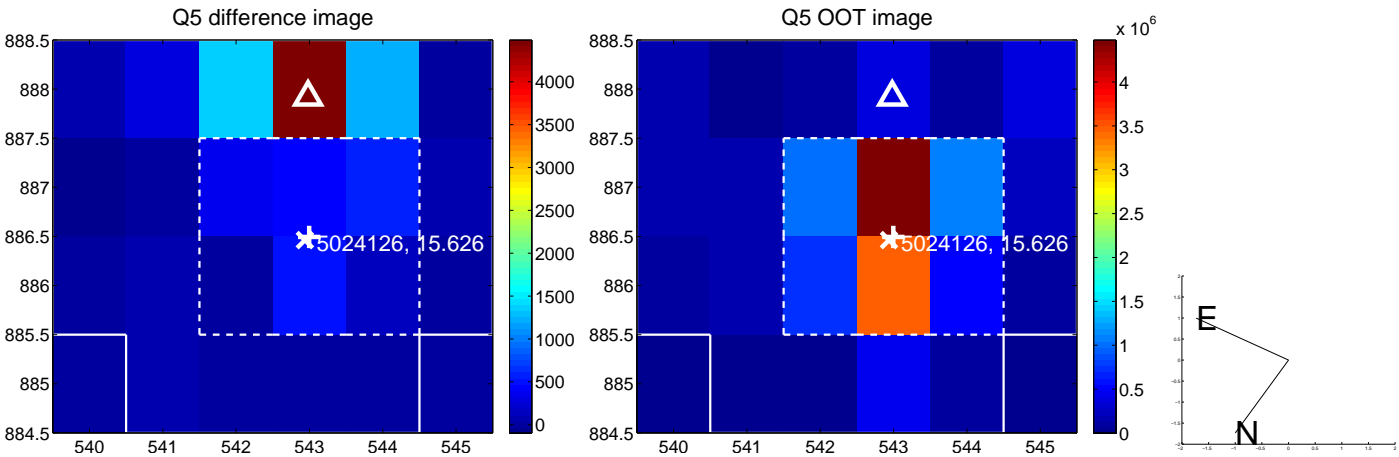


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

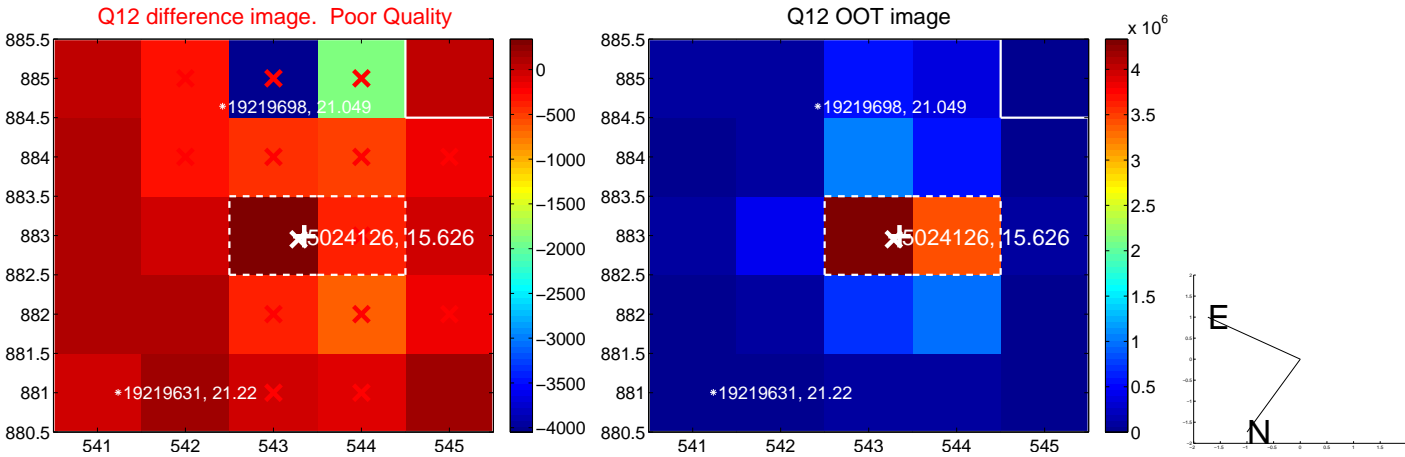
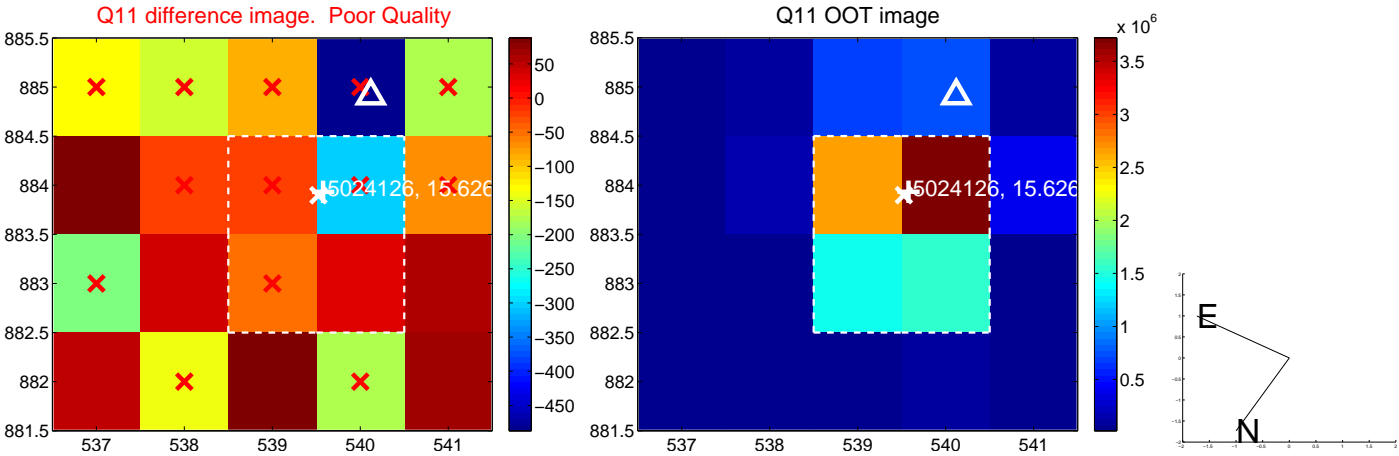
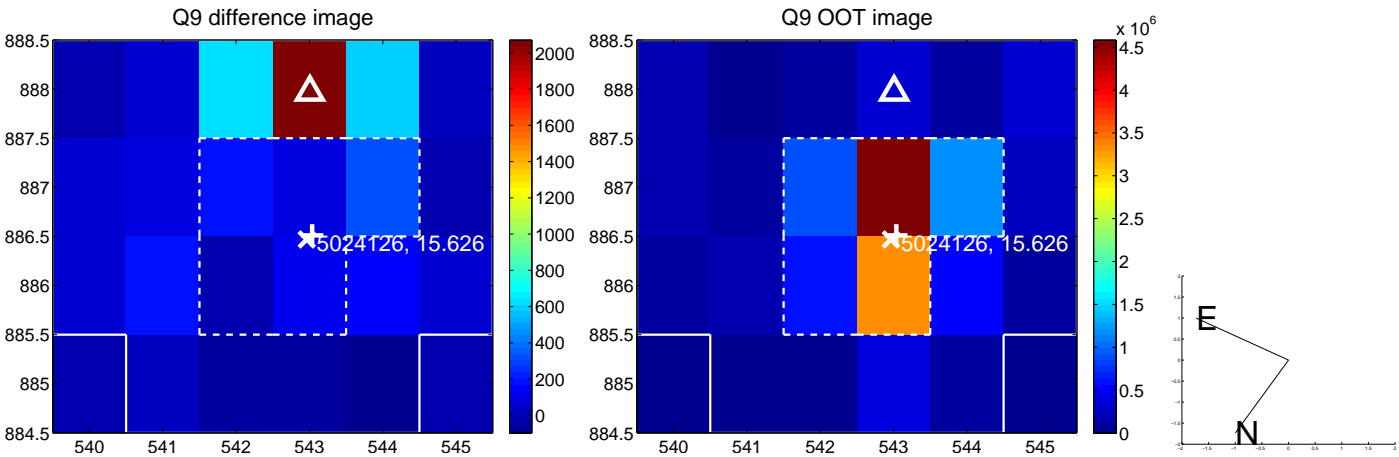
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



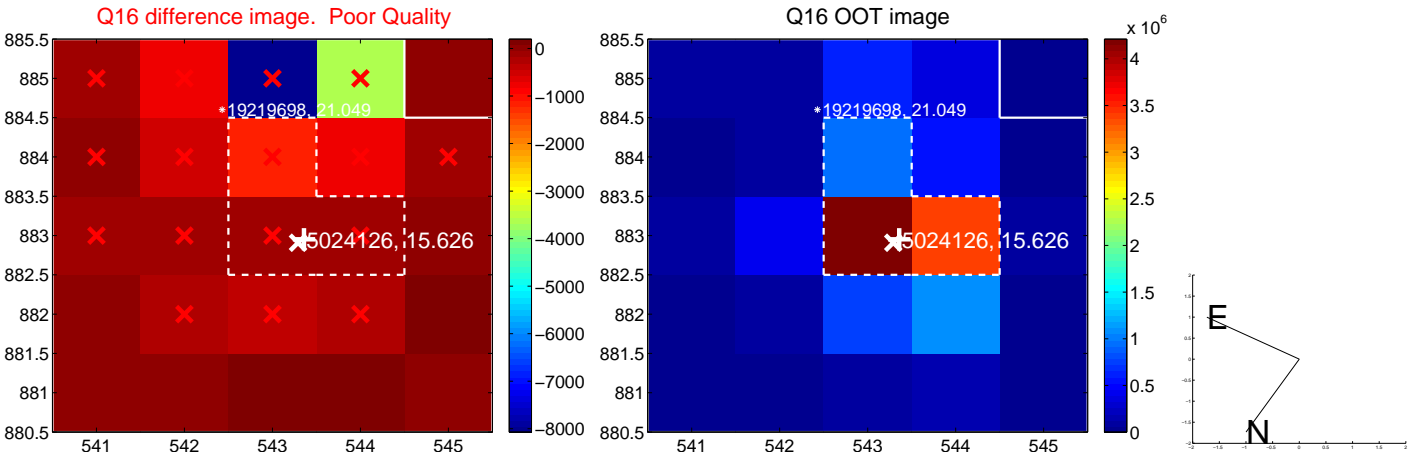
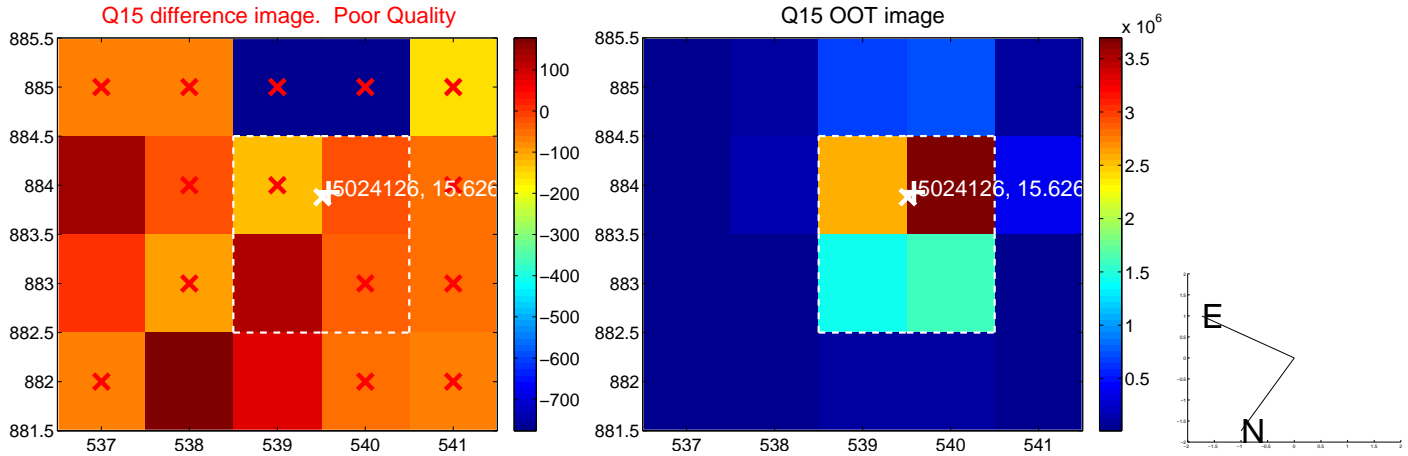
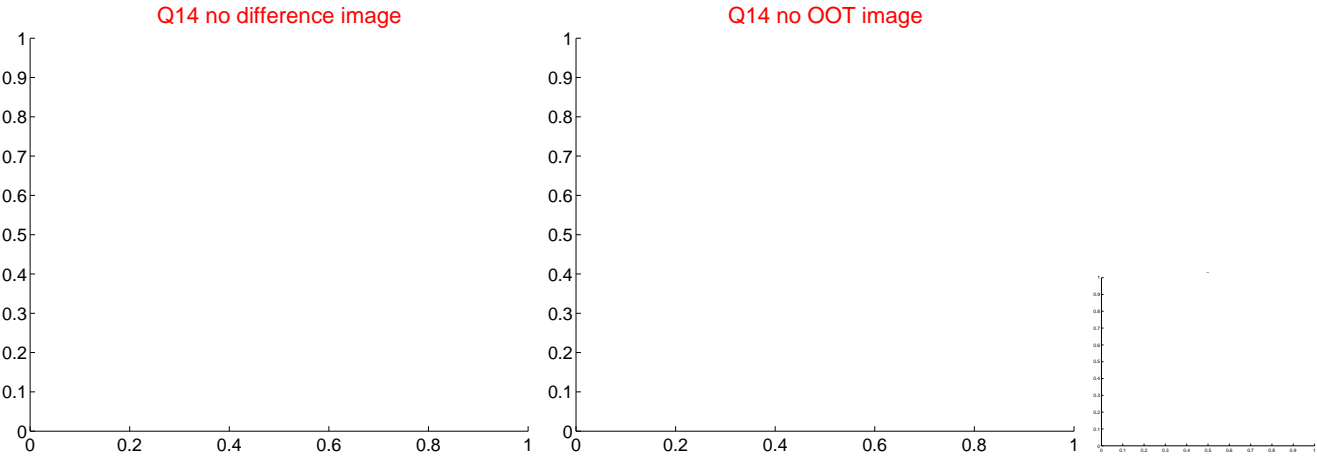
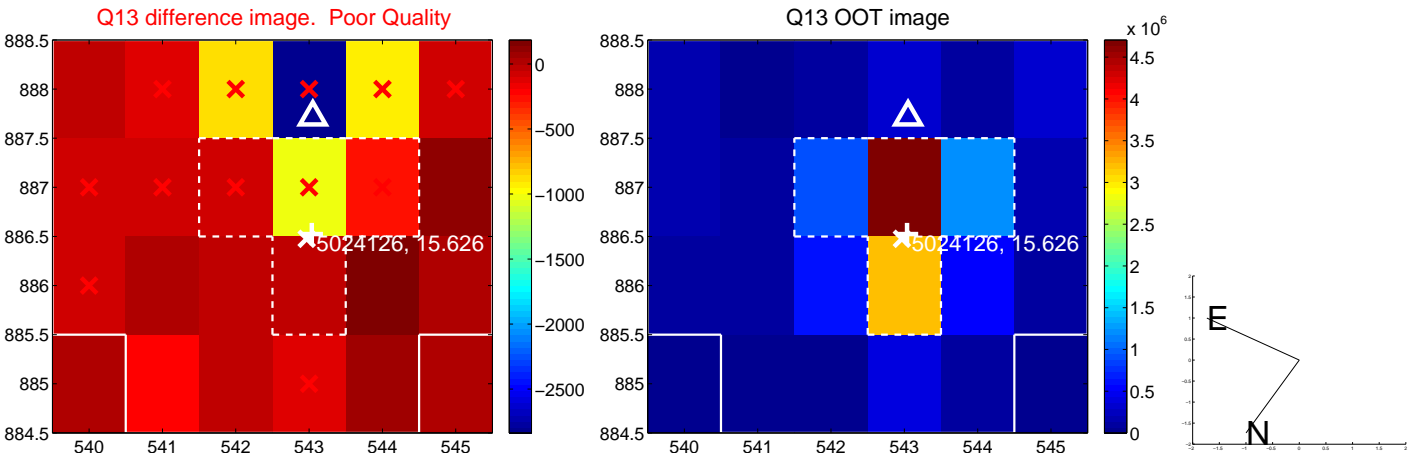
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



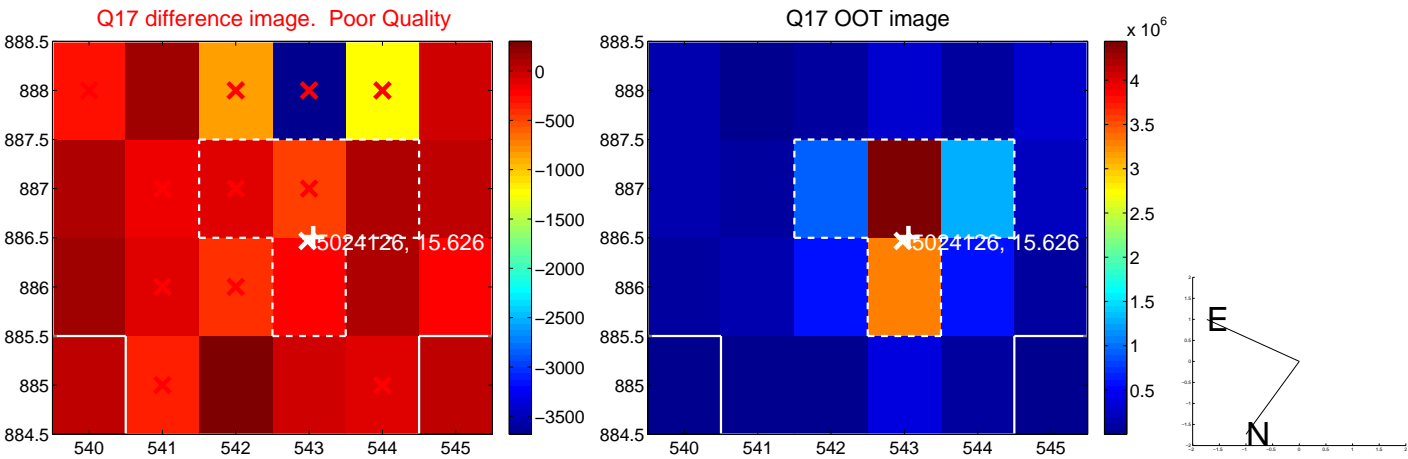
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



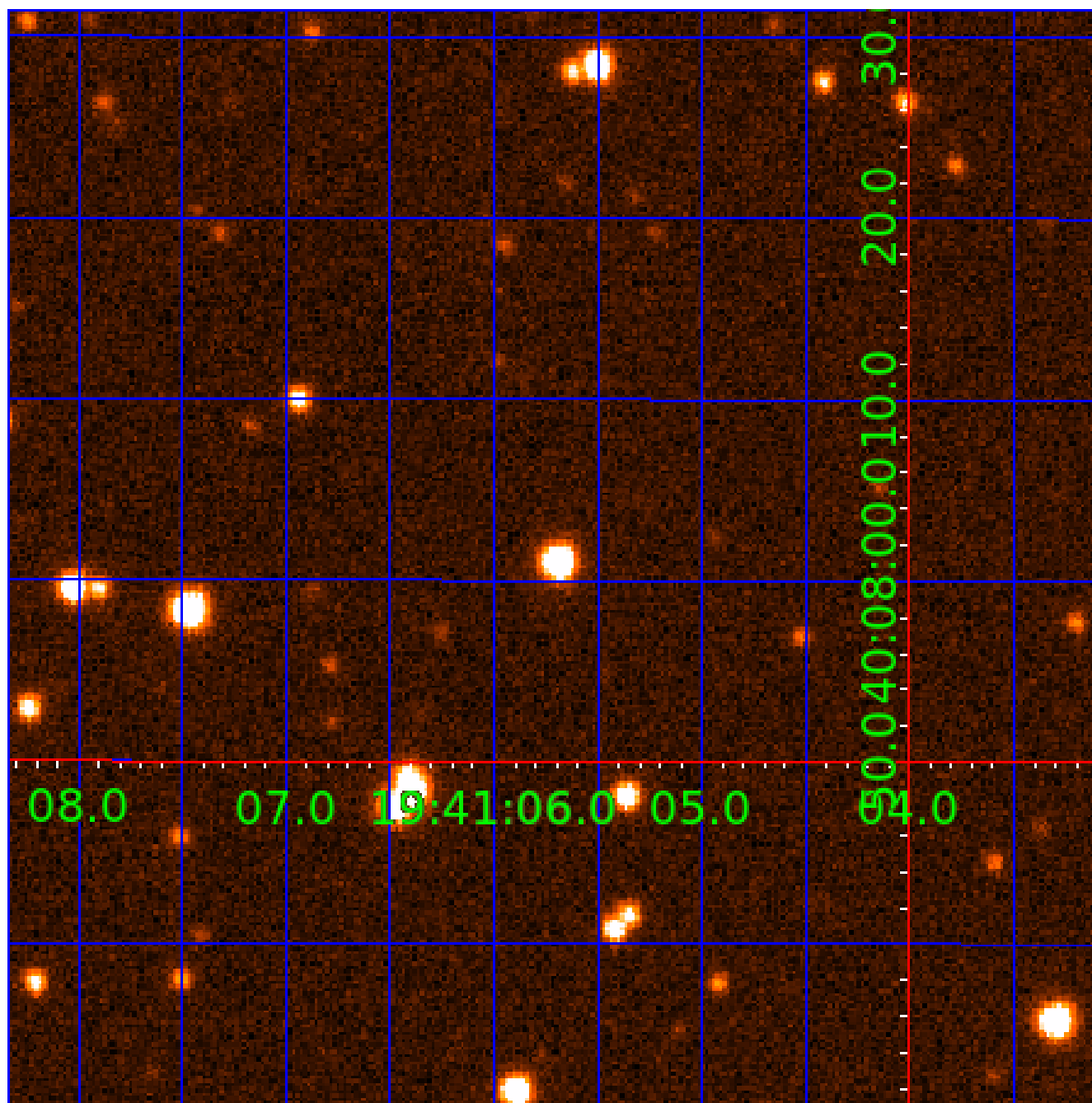
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination



KIC 005024126

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})
005024126-01	OBS	6493.01	0.787108	131.741784	120.0	1.546	10.3	10.5	0.80	5210	1.06	1777.86
005024126-02	OBS	No	0.787018	132.162504	2.5	5.470	8.0	0.4	0.80	5210	0.12	1778.13
005024126-03	OBS	No	33.835014	138.262995	628.0	2.568	8.7	8.4	0.80	5210	2.01	11.81
005024126-05	OBS	No	3.392498	133.369989	900.6	0.625	8.6	7.6	0.80	5210	3.03	253.46

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005024126-01	OBS	FP	0.00	0	1	1	1	MOD_SEC_DV—MOD_SEC_ALT—HAS_SEC_TCE—CENT_RESOLVED_OFFSET—EPHEM_MATCH
005024126-02	OBS	FP	0.00	1	1	1	0	IS_SEC_TCE—CENT_RESOLVED_OFFSET
005024126-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
005024126-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS

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 005024126-03

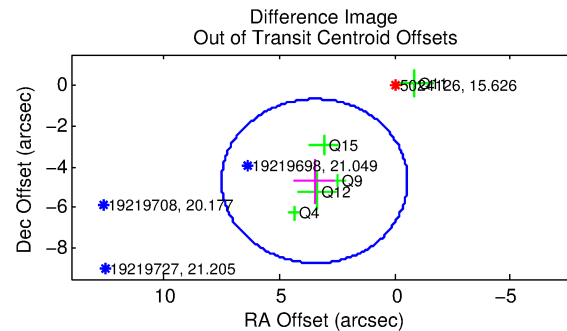
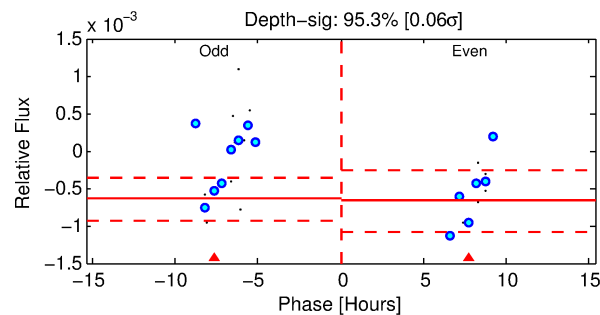
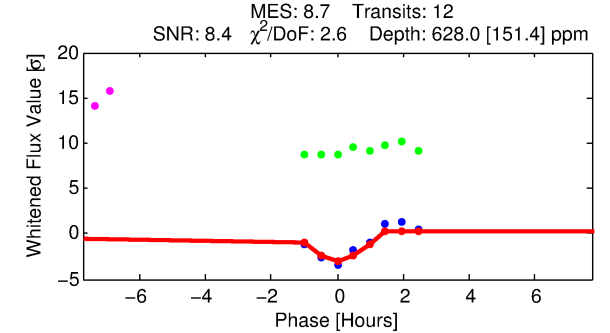
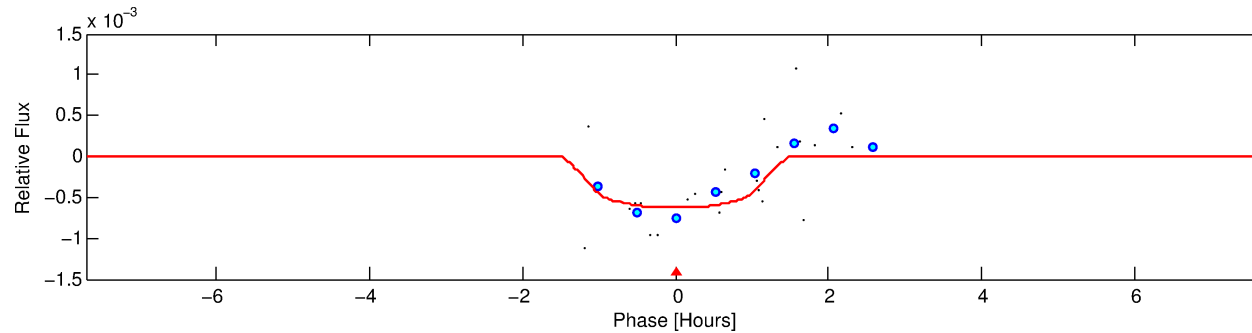
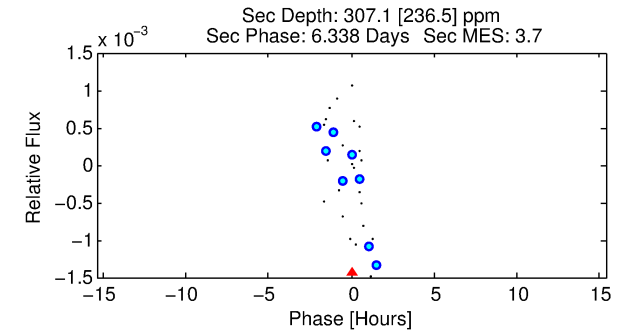
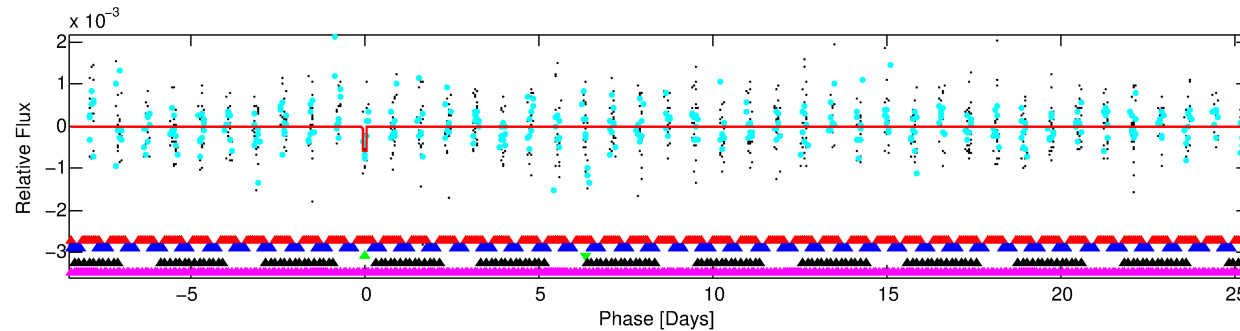
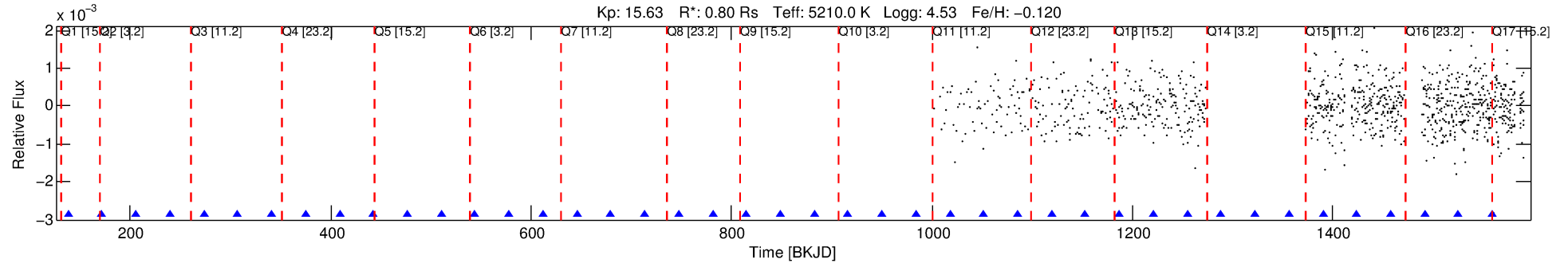
No Significant Match Found

DV One-Page Summary

KIC: 5024126 Candidate: 3 of 5 Period: 33.835 d

KOI: K06493 Corr: No Ephemeris Match

Kp: 15.63 R*: 0.80 Rs Teff: 5210.0 K Logg: 4.53 Fe/H: -0.120



DV Fit Results:

Period = 33.83501 [0.00497] d
Epoch = 138.2630 [0.1691] BKJD
Rp/R* = 0.0230 [0.3615]
a/R* = 93.87 [5376.65]
b = 0.42 [114.76]
Seff = 11.81 [2.61]
Teq = 473 [26] K
Rp = 2.01 [31.52] Re
a = 0.1889 [0.0213] AU
Ag = 1498.74 [47118.98] [0.03σ]
Teffp = 4547 [35739] K [0.11σ]

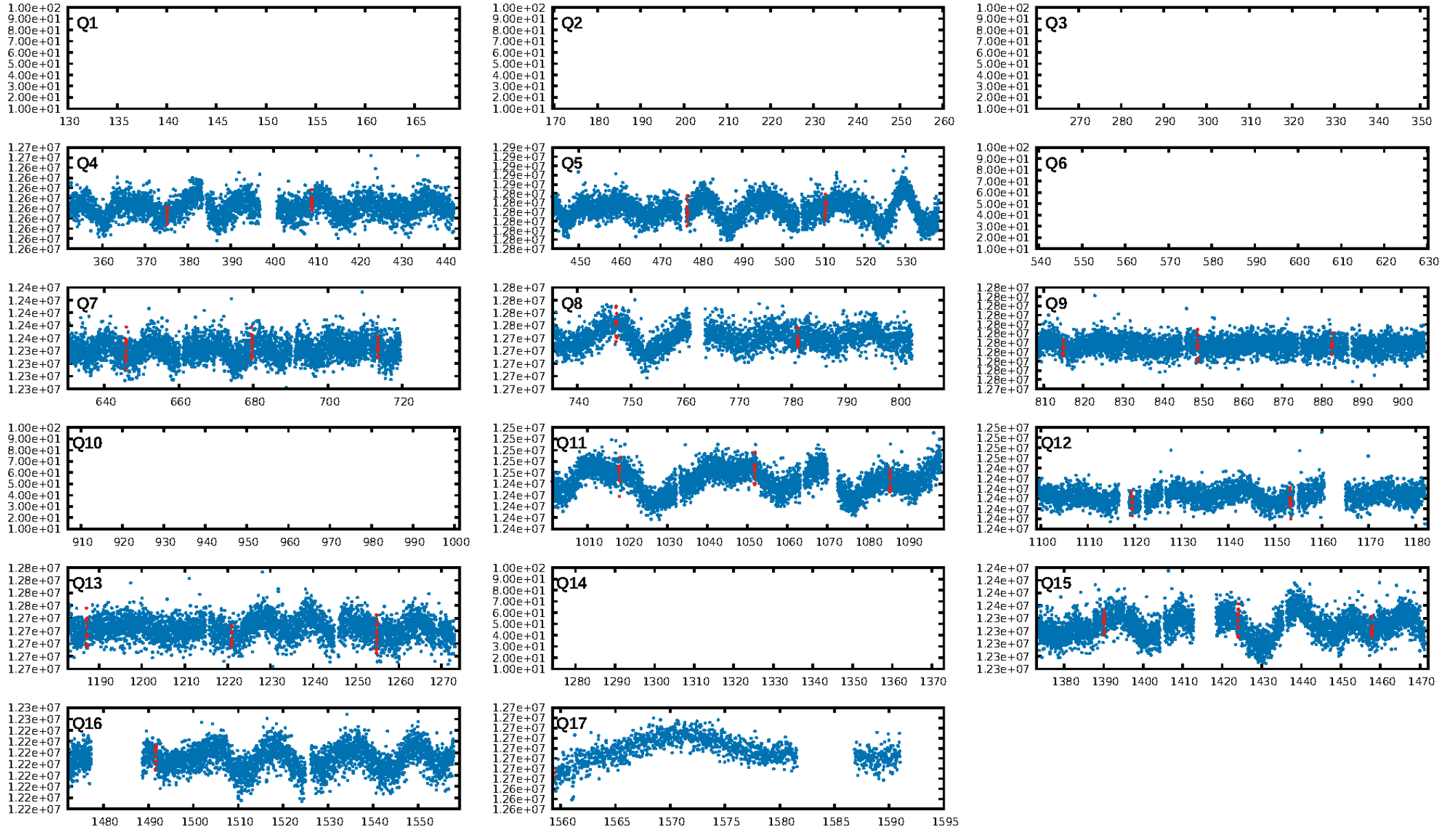
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [147.19σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 18.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.06e-06
RollingBand-fgt: 1.00 [11/11]
GhostDiagnostic-chr: 3.357
Centroid-sig: N/A
Centroid-so: 1.536 arcsec [1.14σ]
OotOffset-rm: 5.850 arcsec [4.37σ]
KicOffset-rm: 6.025 arcsec [5.36σ]
OotOffset-st: 0/2/2/1 [5]
KicOffset-st: 0/2/2/1 [5]
DiffImageQuality-fgm: 0.20 [1/5]
DiffImageOverlap-fno: 0.00 [0/10]

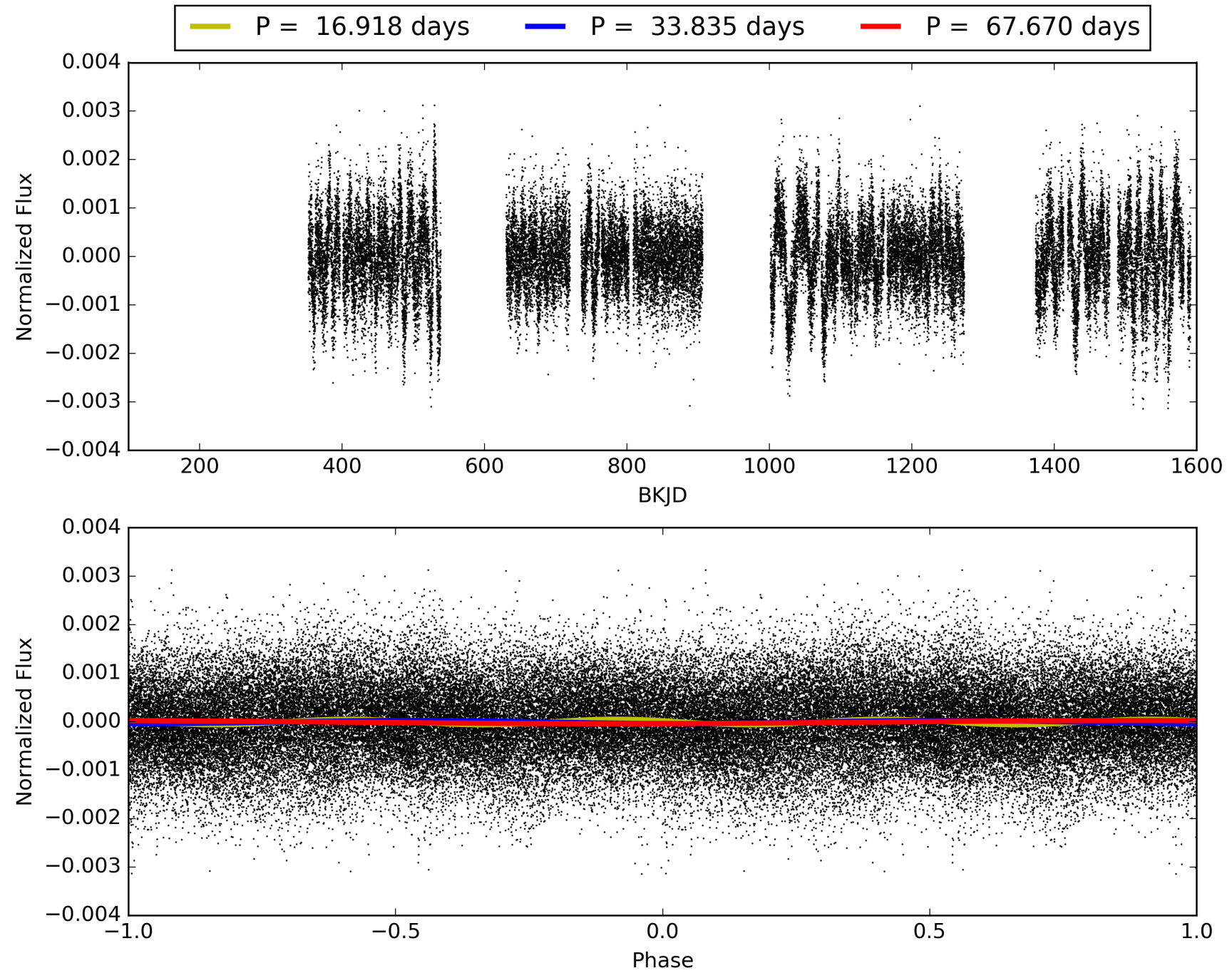
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 19:30:50 Z

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

TCE 005024126-03, PDC Light Curves

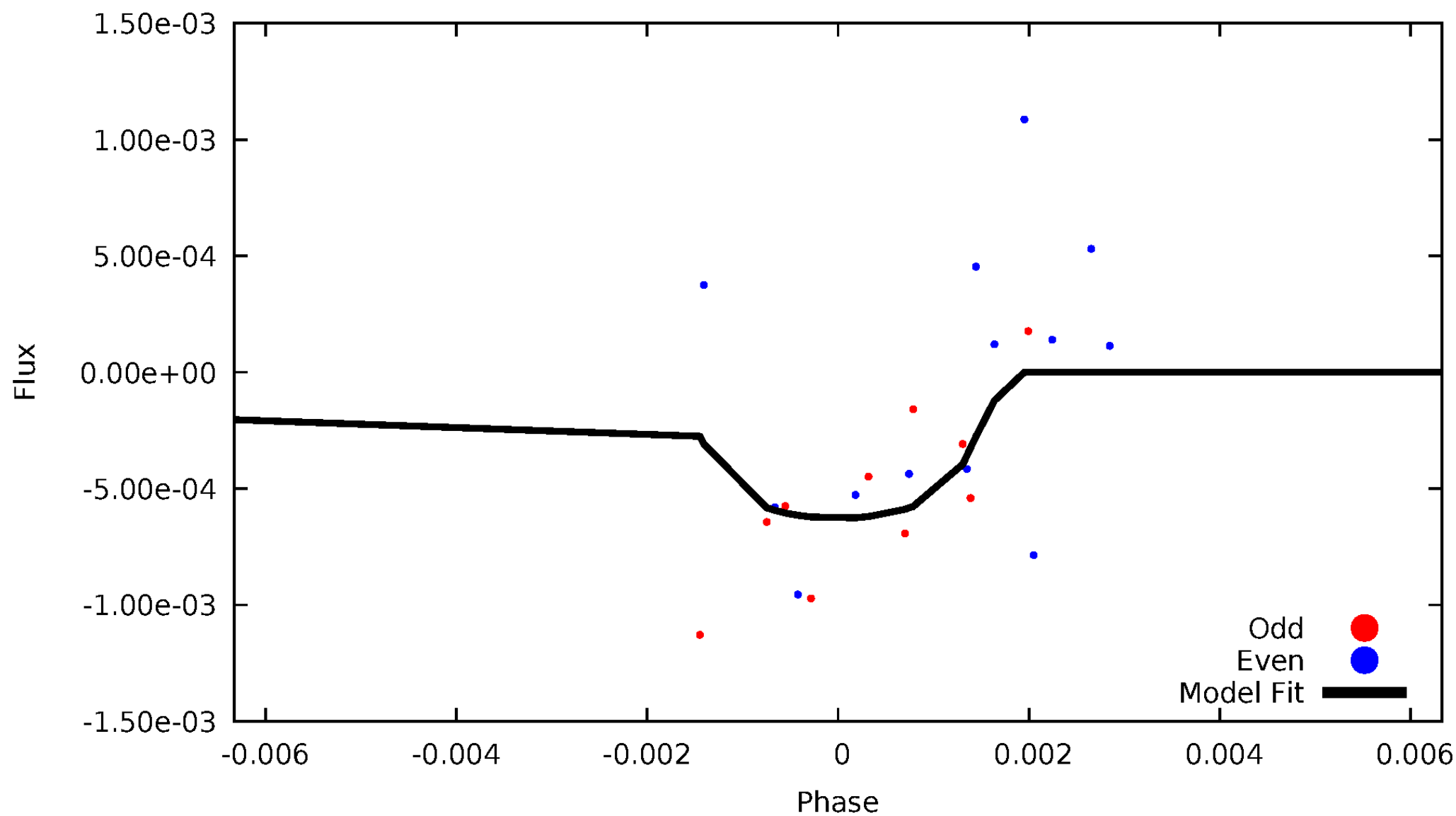


TCE 005024126-03



DV Odd/Even

TCE 005024126-03

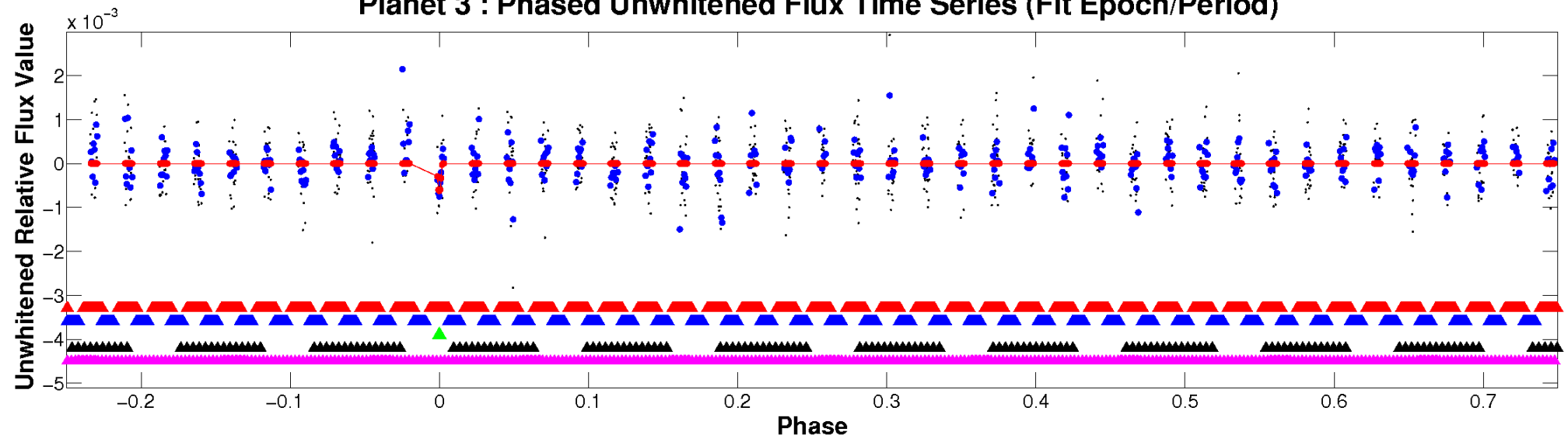


ALT Odd/Even

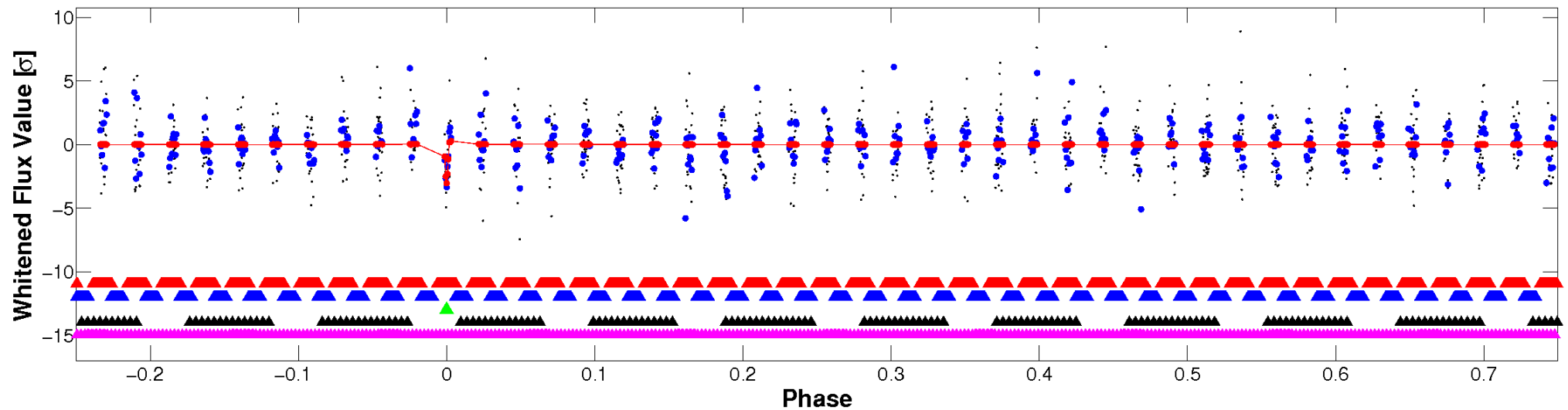
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

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

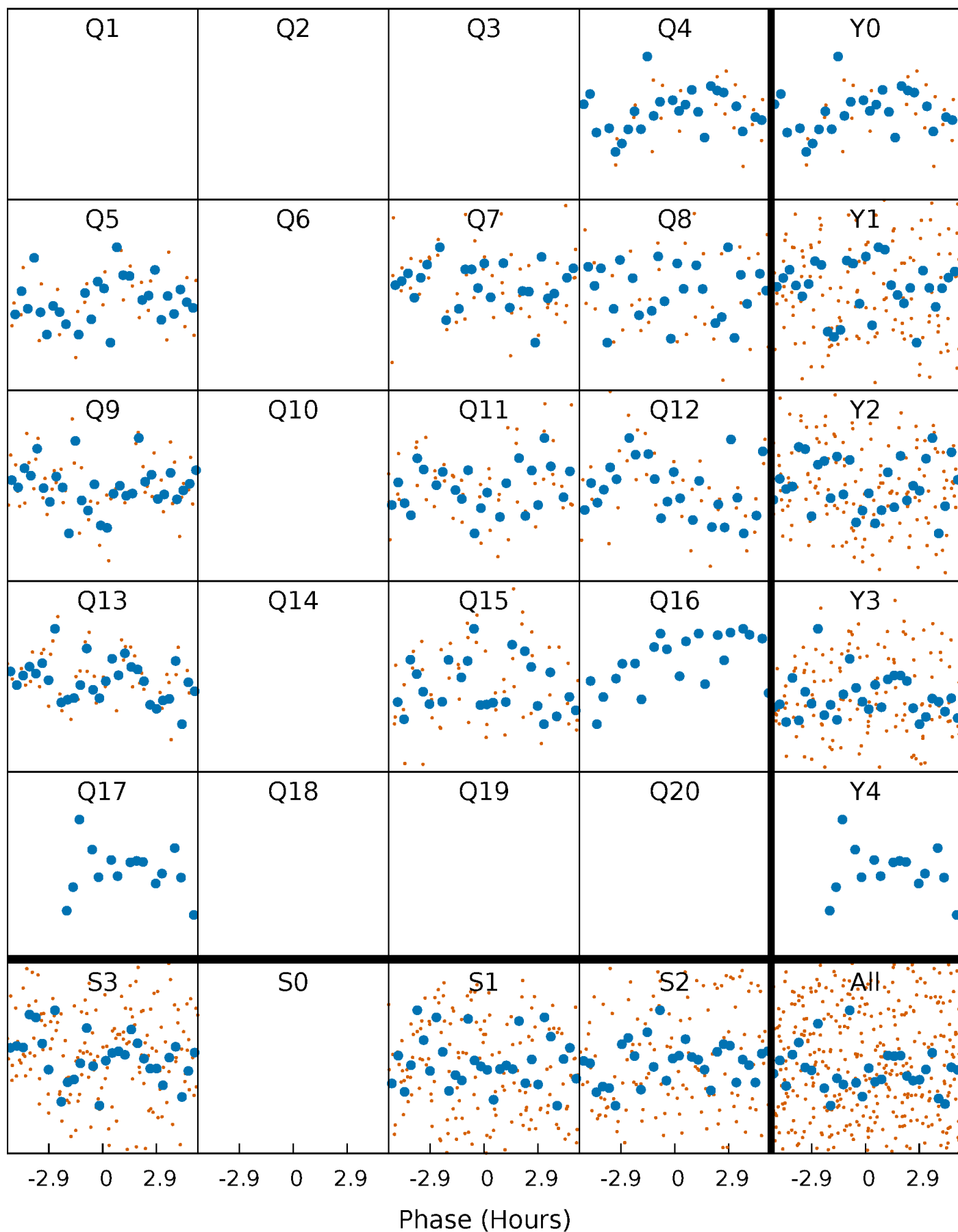


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



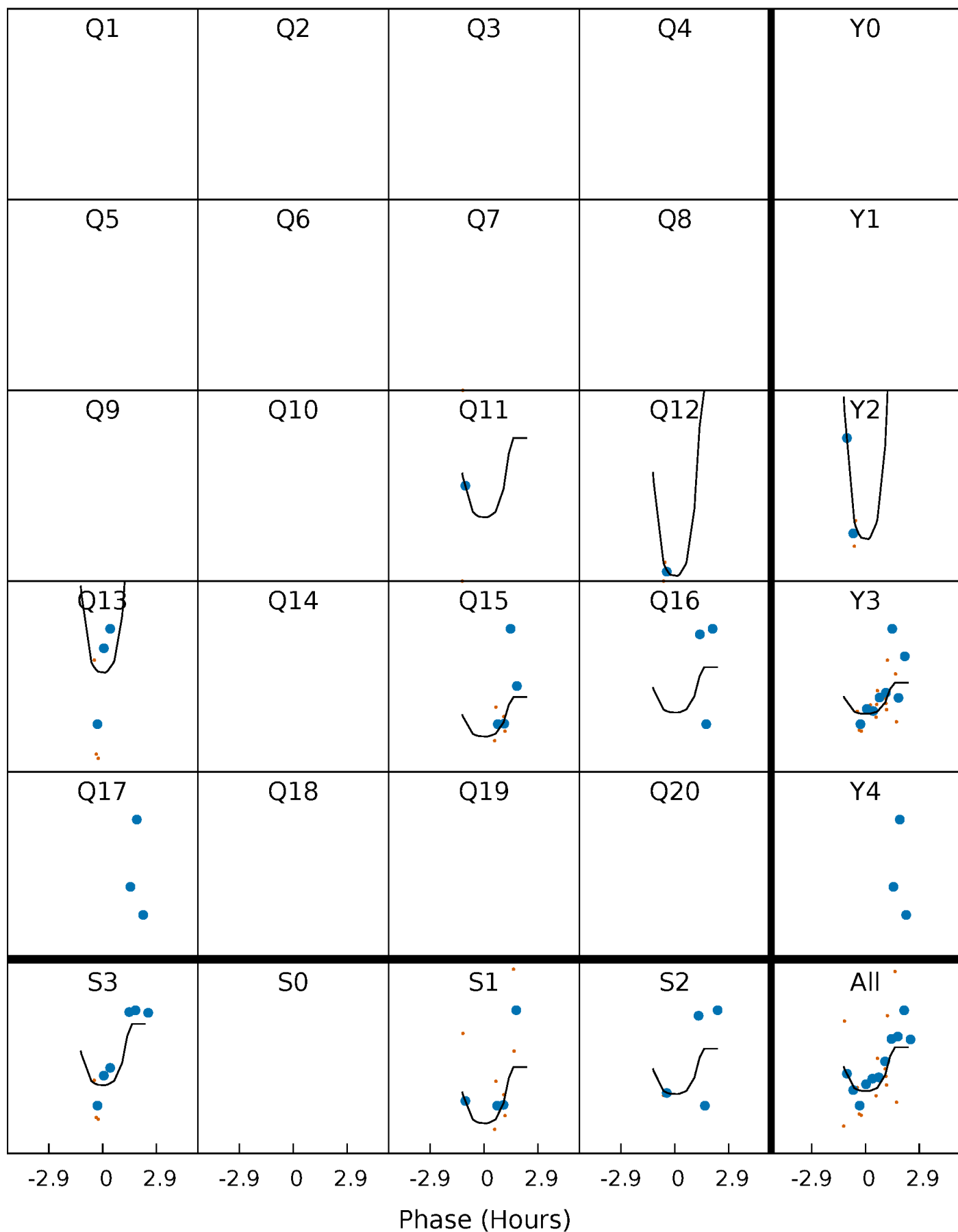
PDC Quarter-Phased Transit Curves

TCE 005024126-03 P= 33.835014 Days $T_0=138.262995$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 005024126-03 $P = 33.835014$ Days $T_0 = 138.262995$ (BKJD)

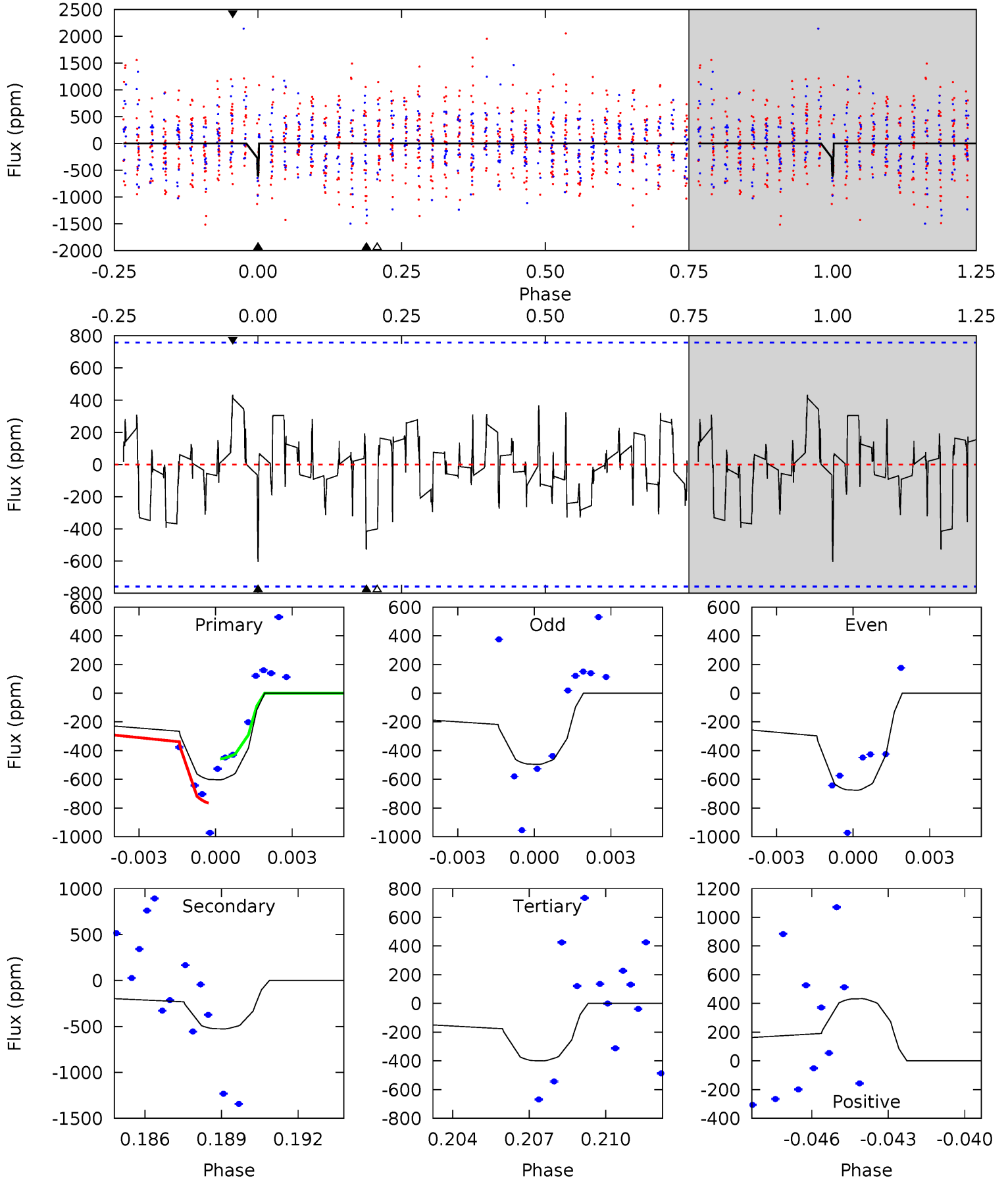


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

005024126-03, P = 33.835014 Days, E = 138.262995 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.18	3.65	2.77	3.00	5.25	2.96	1.11	1.41	1.18	0.88	0.65	0.61	0.92	0.42	1.03



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 005024126

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5210^{+203}_{-166}	$4.528^{+0.067}_{-0.082}$	$-0.120^{+0.300}_{-0.300}$	$0.799^{+0.112}_{-0.084}$	$0.786^{+0.103}_{-0.069}$	$2.169^{+0.673}_{-0.563}$
	+4%/-3%	+1%/-2%	+250%/-250%	+14%/-11%	+13%/-9%	+31%/-26%
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 005024126-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-527 ± 144	$22.66^{+22.94}_{-15.81}$	661^{+35}_{-27}	2415^{+866}_{-376}	20^{+191}_{-16}
Alt.	N/A	N/A	N/A	N/A	N/A

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

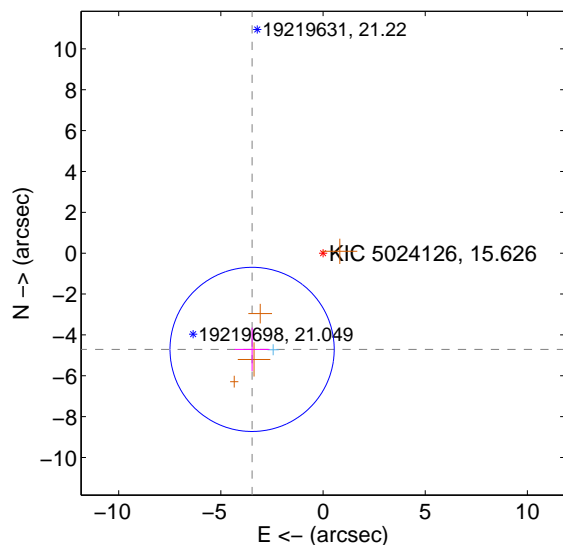
Supplemental centroid analysis for 005024126-03. Kepler magnitude: 15.63. Transit SNR 8.43

There are 1 quarters with good PRF difference image offsets

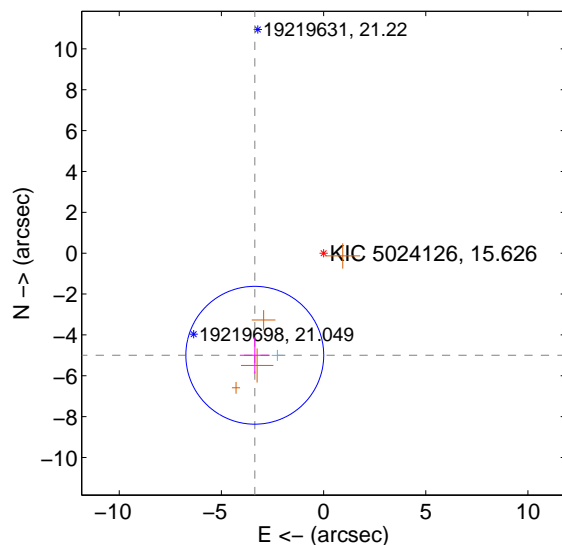
The direct PRF centroid is offset from the target star catalog position by about 0.34 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.850 ± 1.339	4.37	3.471 ± 0.849	-4.709 ± 1.062
PRF-fit source offset from KIC position	6.025 ± 1.124	5.36	3.367 ± 0.731	-4.996 ± 0.893
photometric centroid source offset	1.54 ± 1.35	1.14	0.51 ± 1.42	1.45 ± 1.34

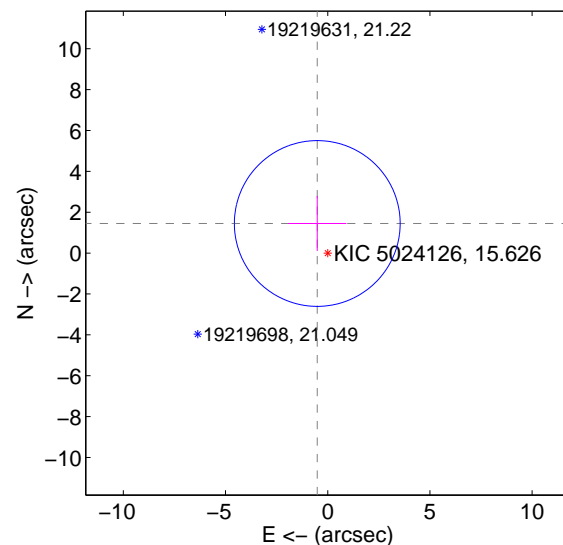
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

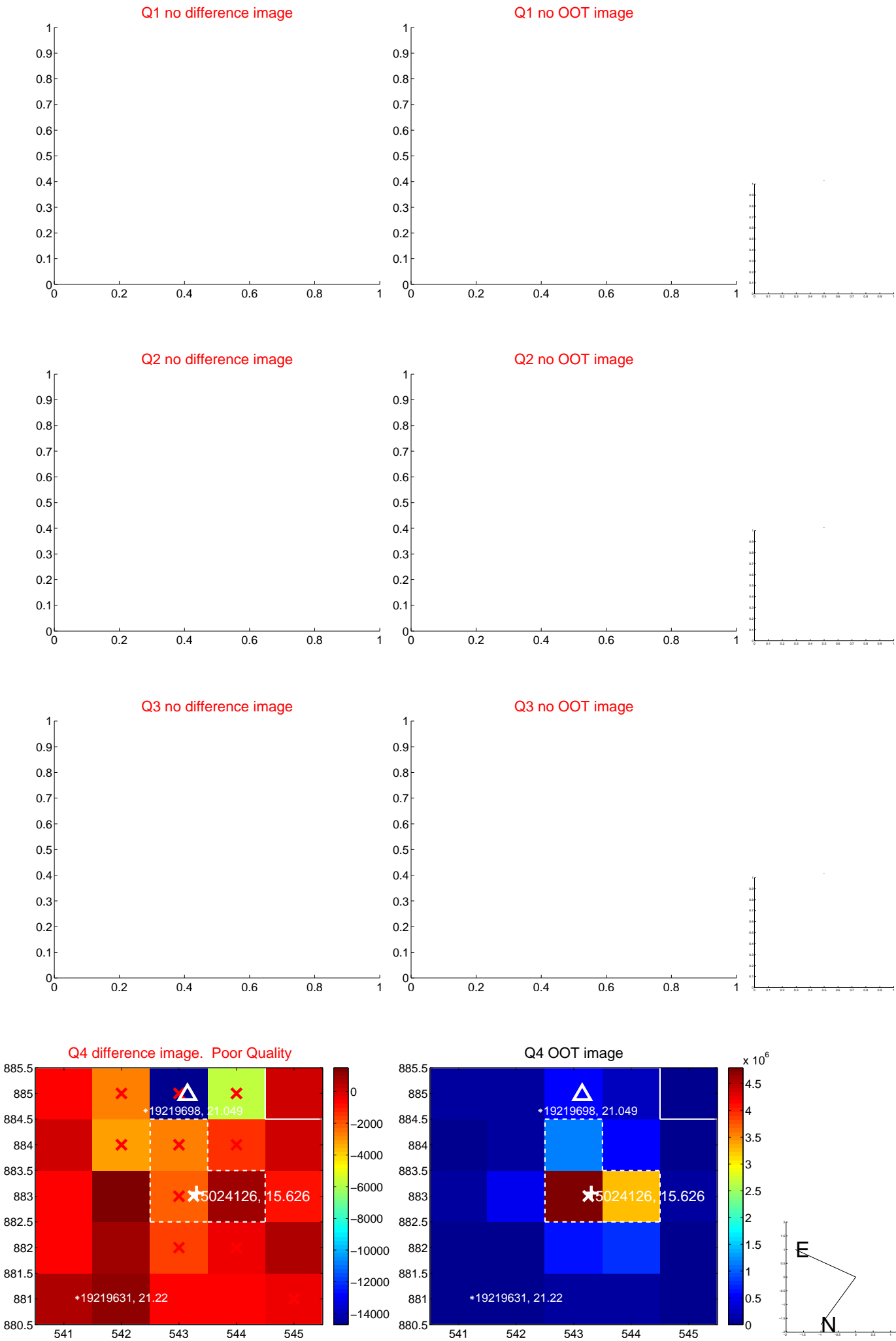


offset from photometric centroids

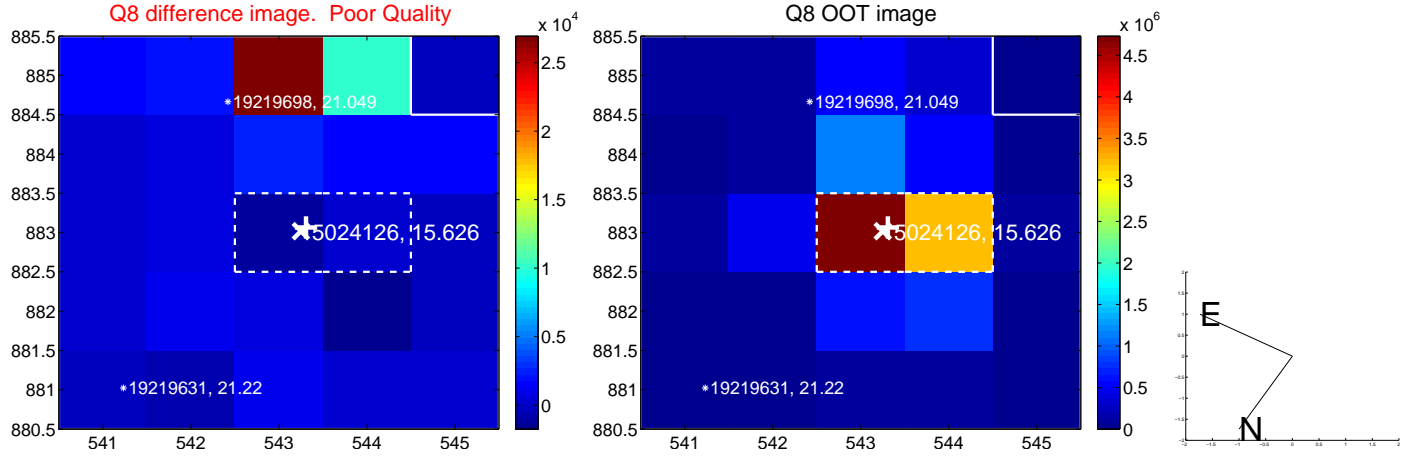
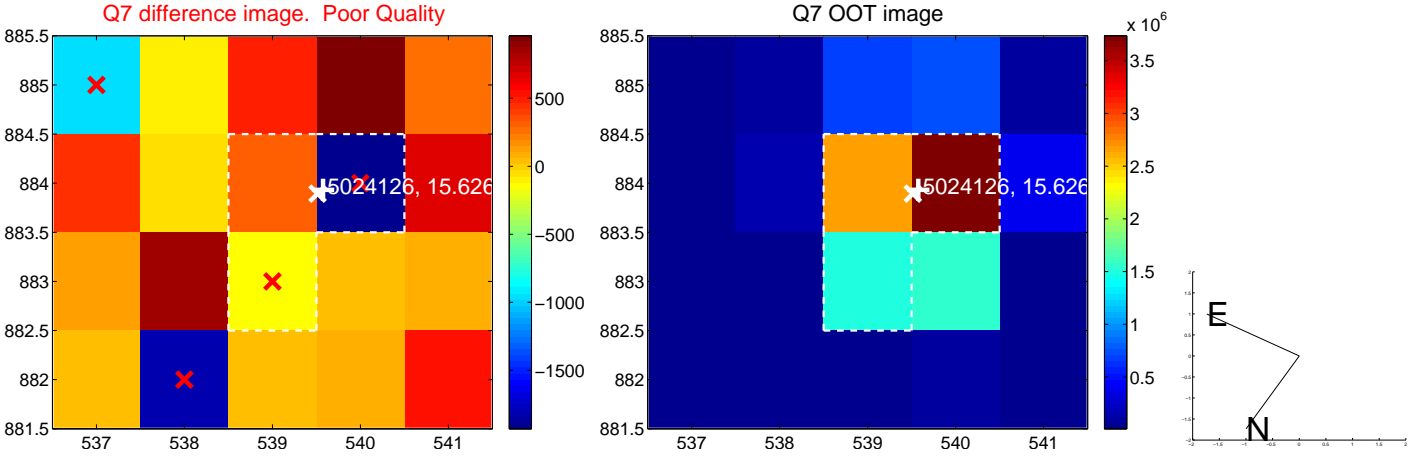
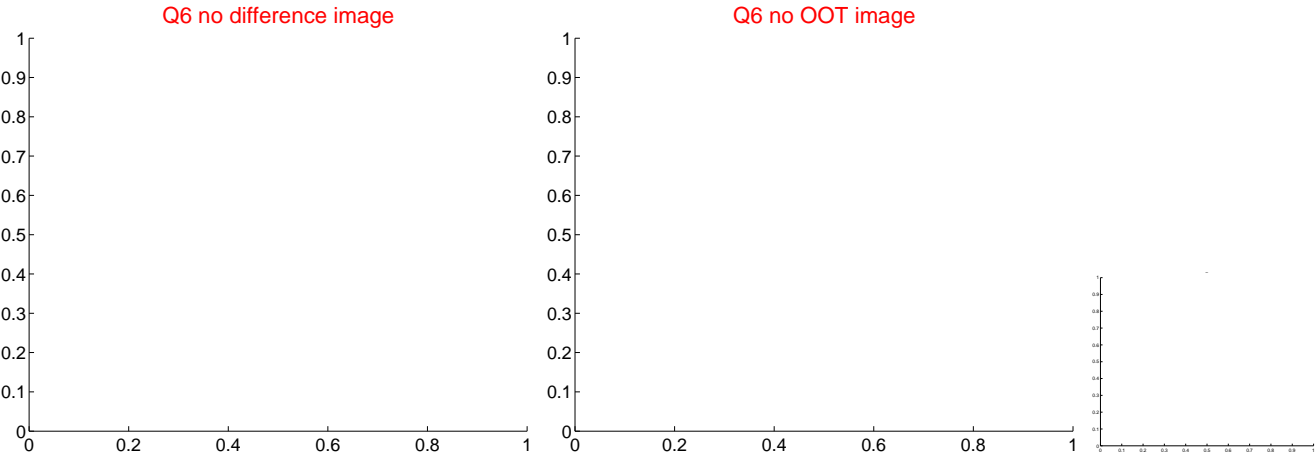
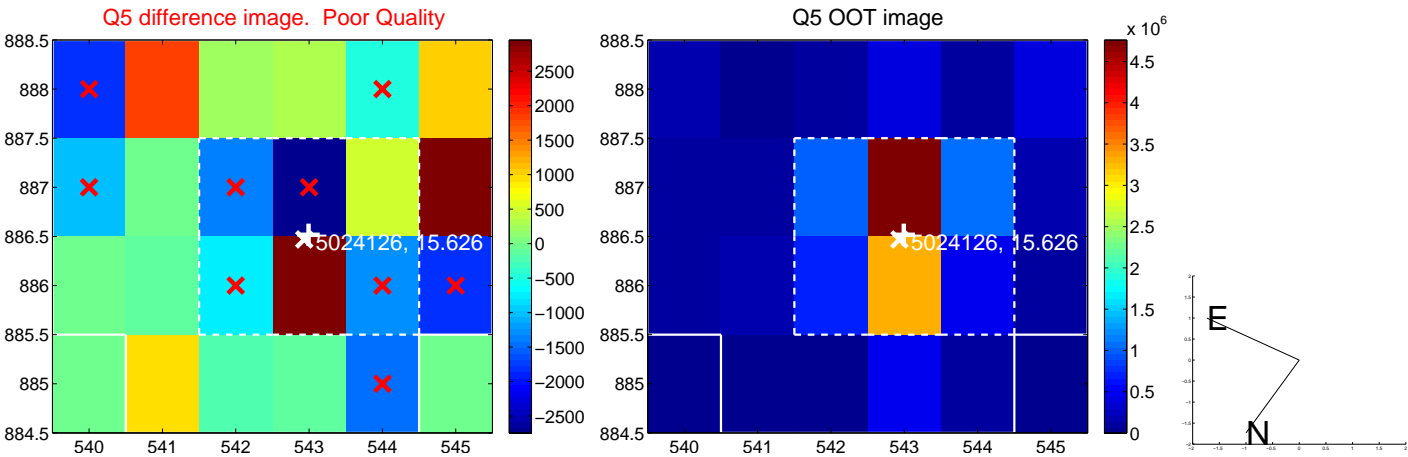


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

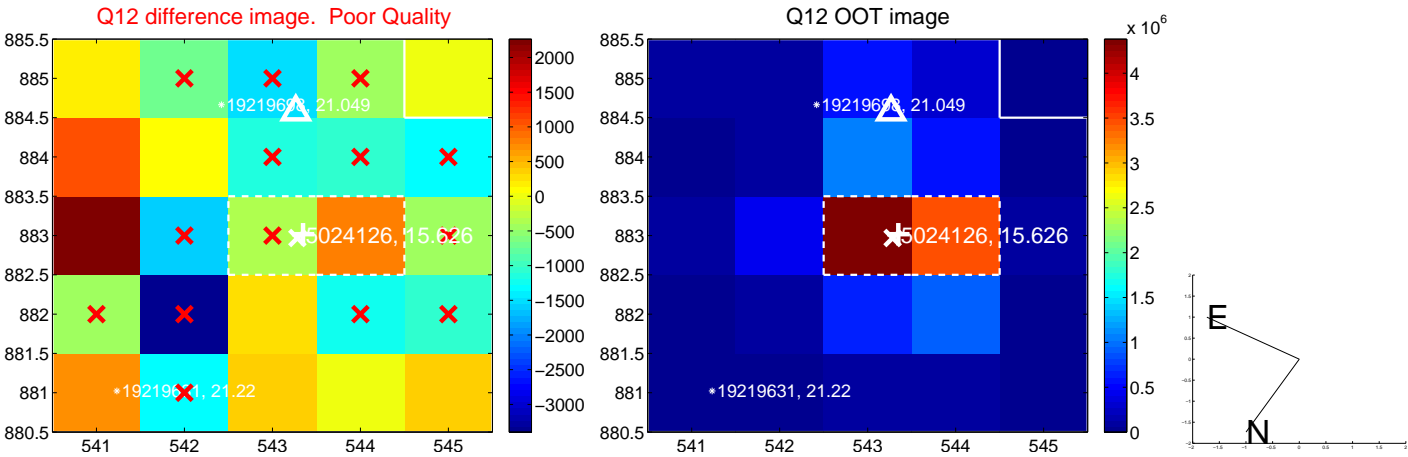
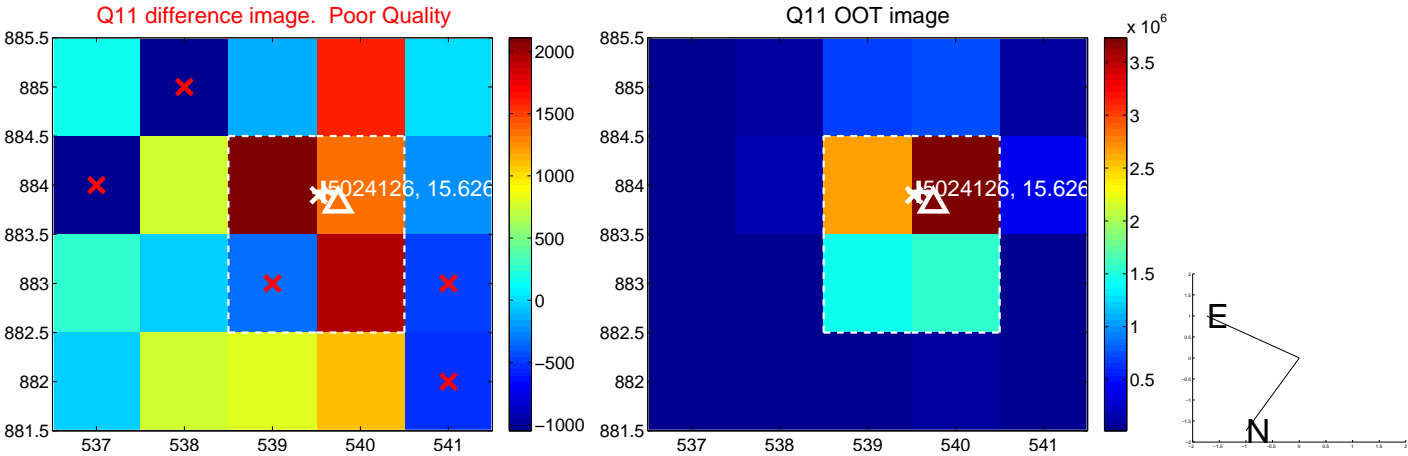
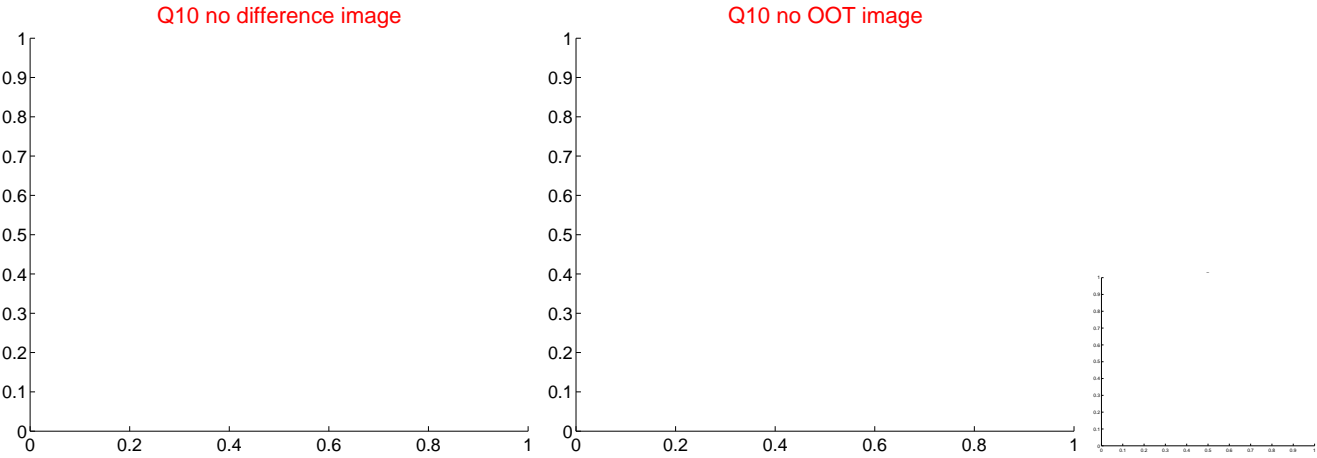
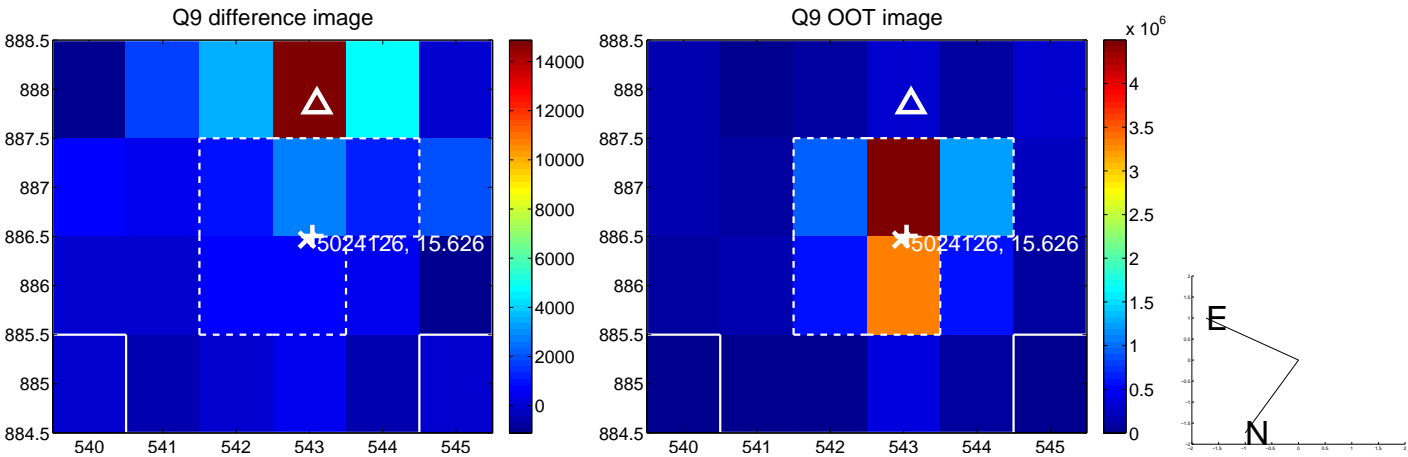
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



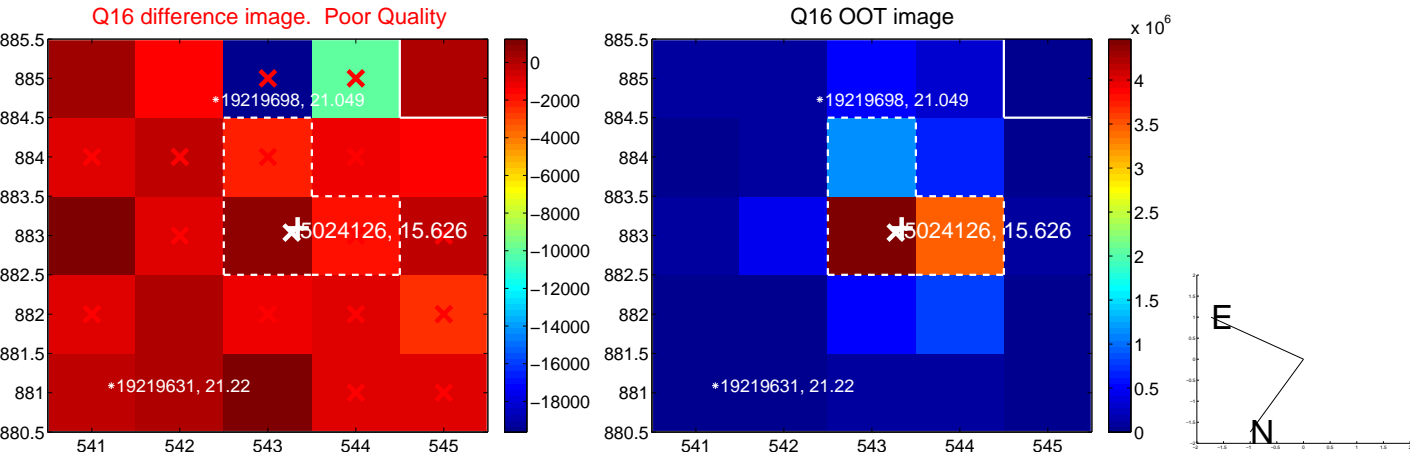
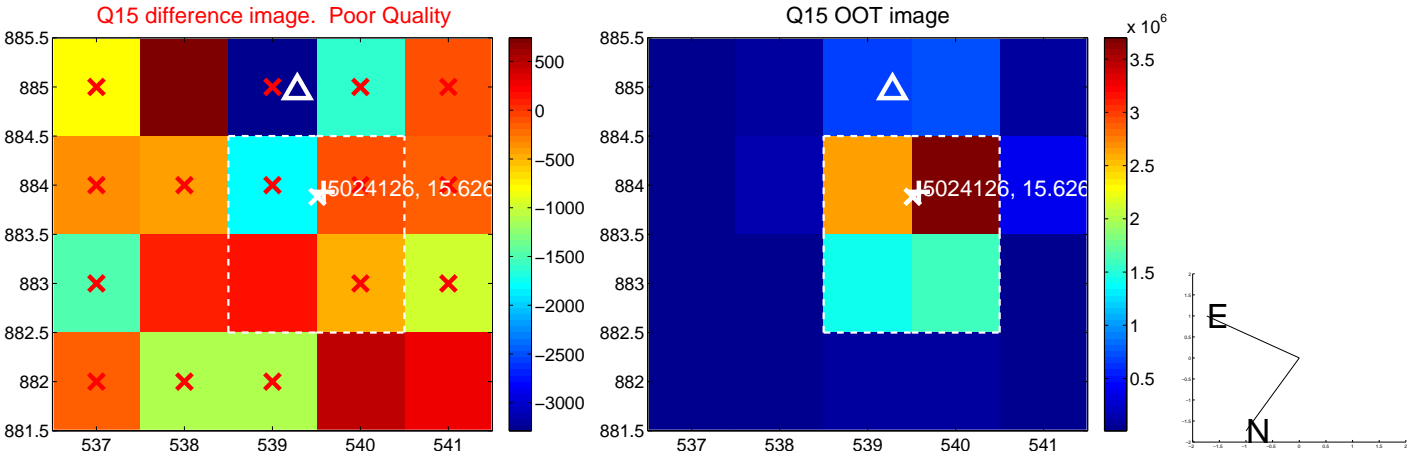
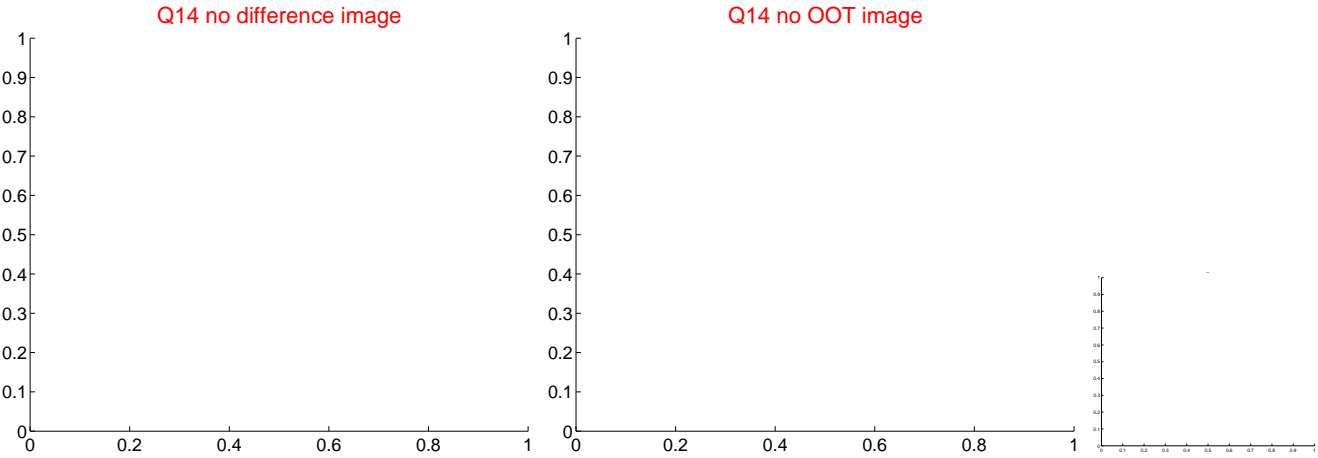
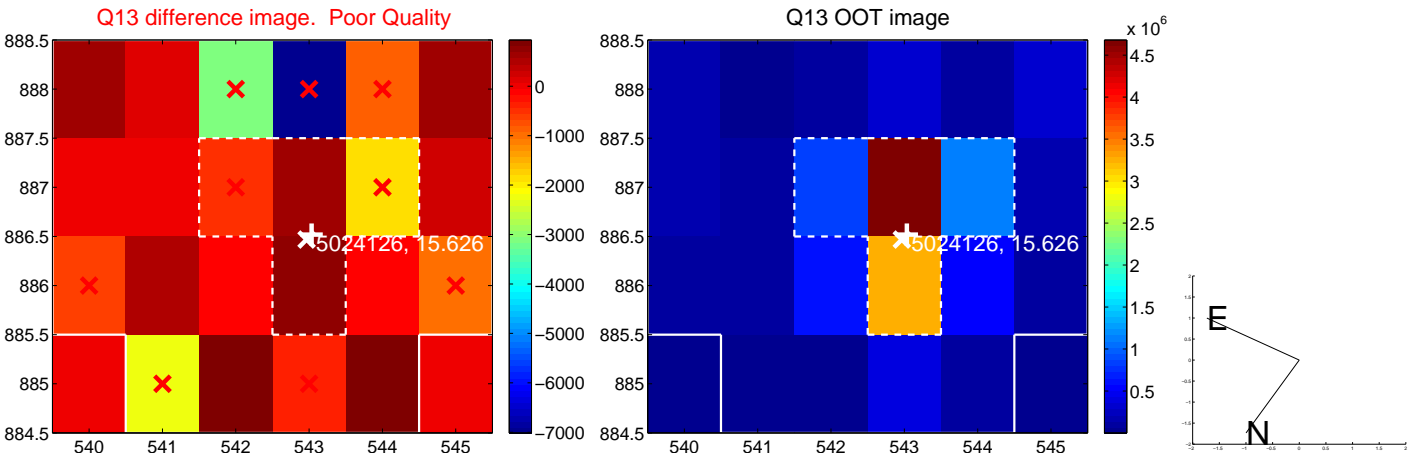
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



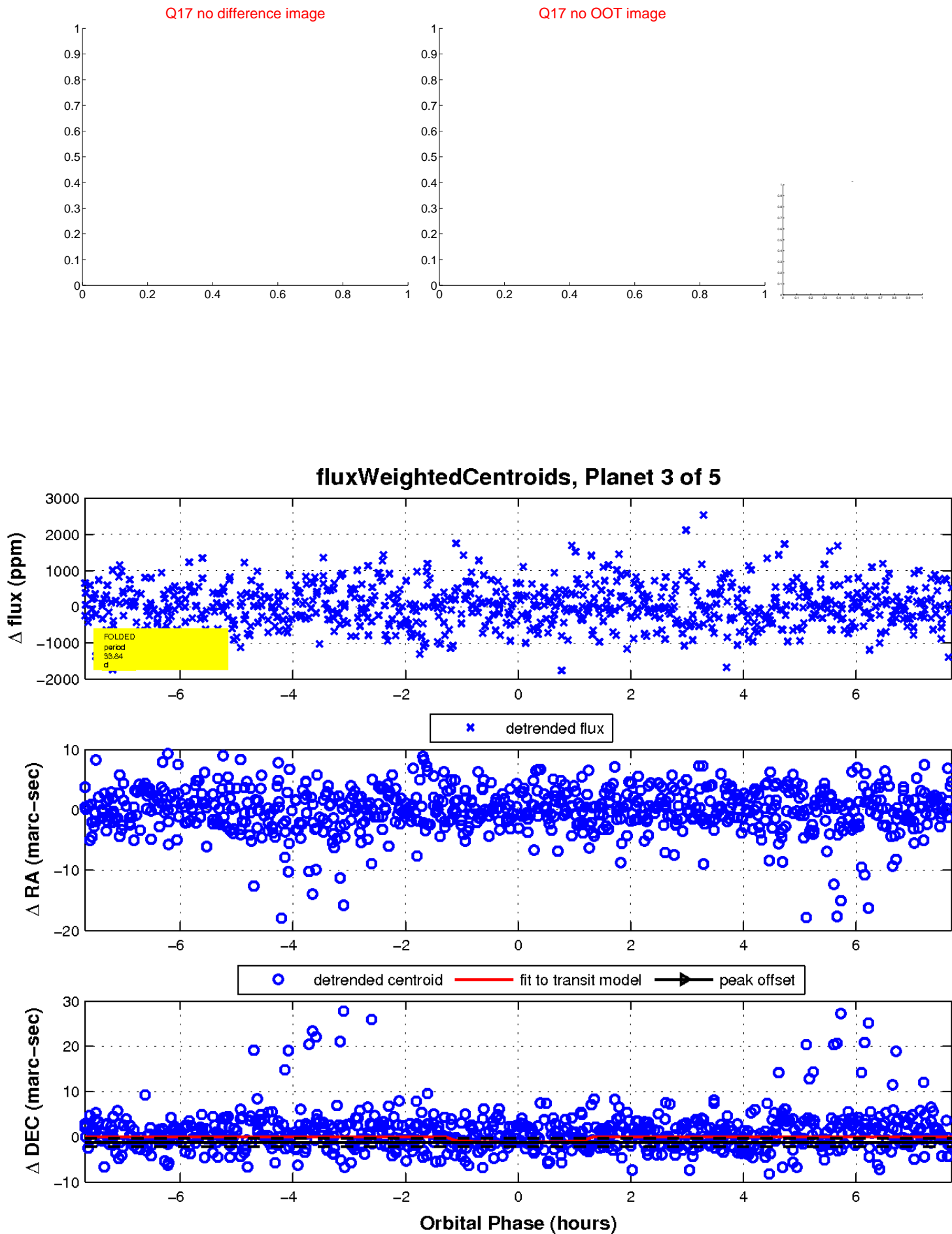
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

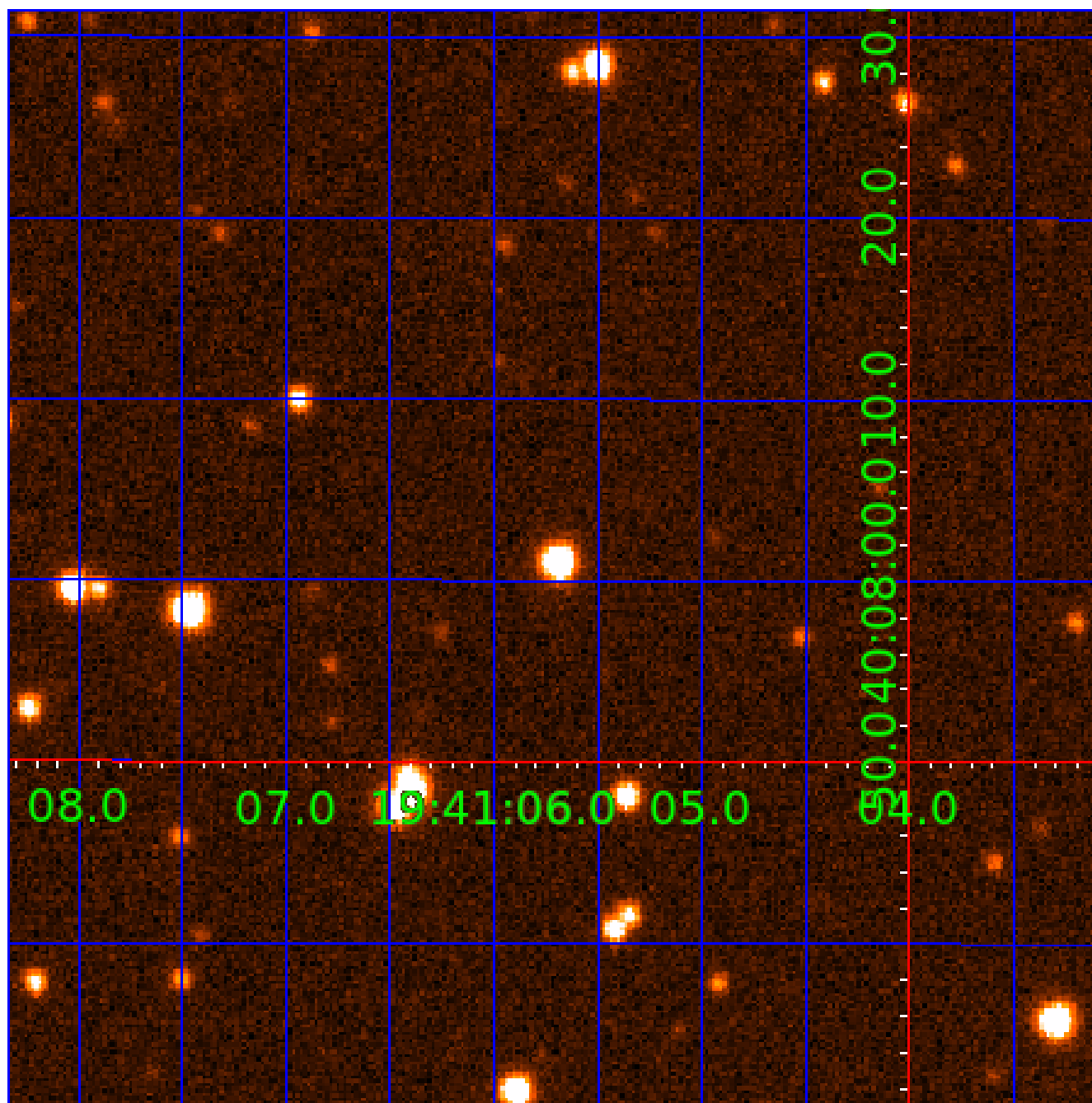


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005024126

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})
005024126-01	OBS	6493.01	0.787108	131.741784	120.0	1.546	10.3	10.5	0.80	5210	1.06	1777.86
005024126-02	OBS	No	0.787018	132.162504	2.5	5.470	8.0	0.4	0.80	5210	0.12	1778.13
005024126-03	OBS	No	33.835014	138.262995	628.0	2.568	8.7	8.4	0.80	5210	2.01	11.81
005024126-05	OBS	No	3.392498	133.369989	900.6	0.625	8.6	7.6	0.80	5210	3.03	253.46

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005024126-01	OBS	FP	0.00	0	1	1	1	MOD_SEC_DV—MOD_SEC_ALT—HAS_SEC_TCE—CENT_RESOLVED_OFFSET—EPHEM_MATCH
005024126-02	OBS	FP	0.00	1	1	1	0	IS_SEC_TCE—CENT_RESOLVED_OFFSET
005024126-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
005024126-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS

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 005024126-05

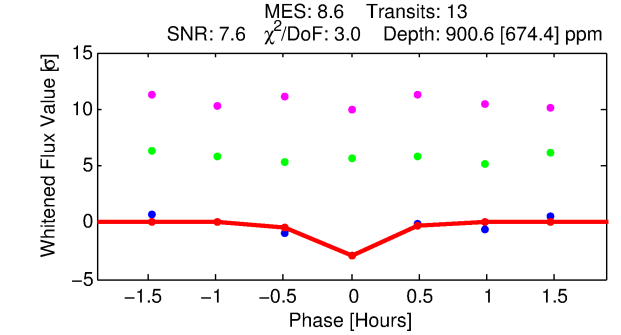
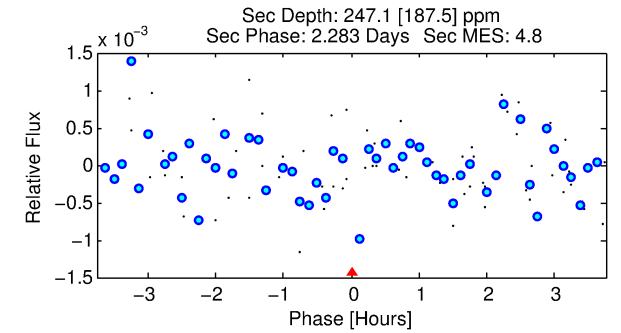
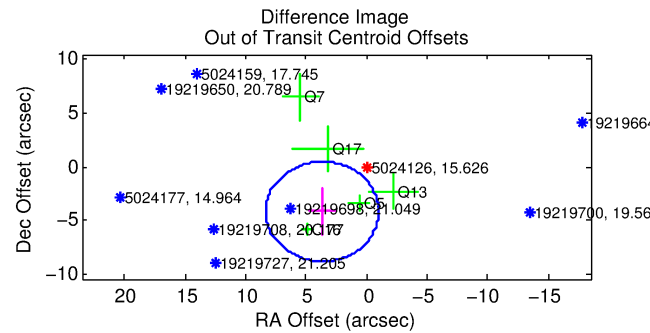
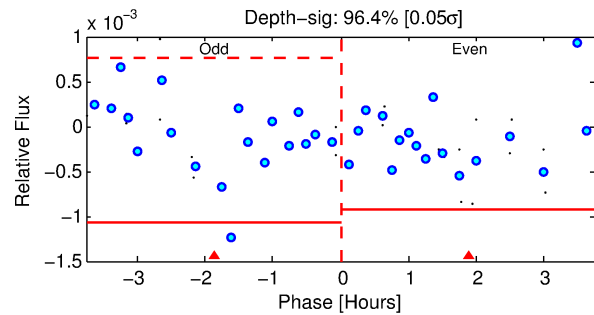
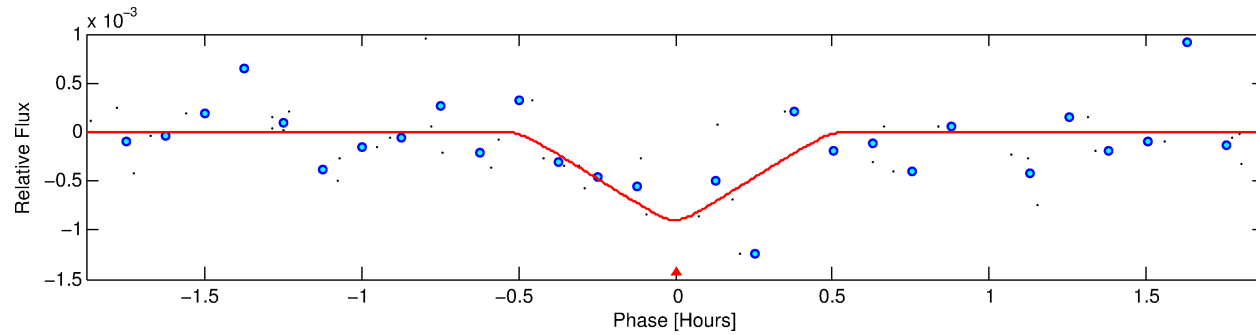
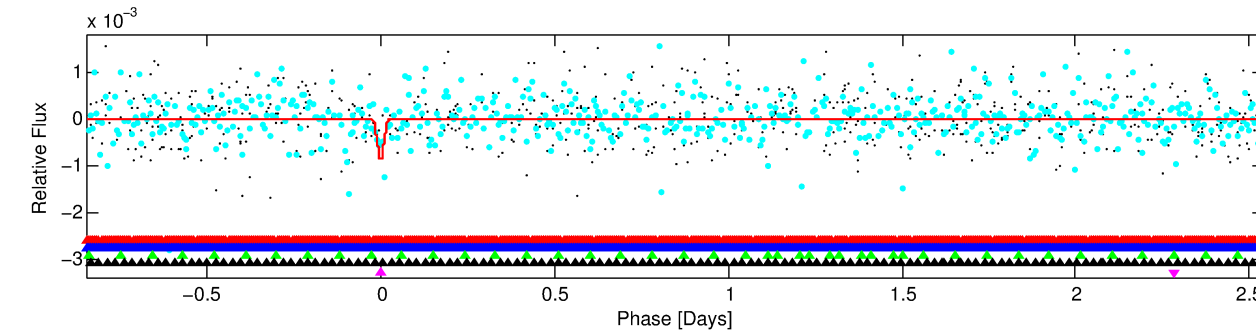
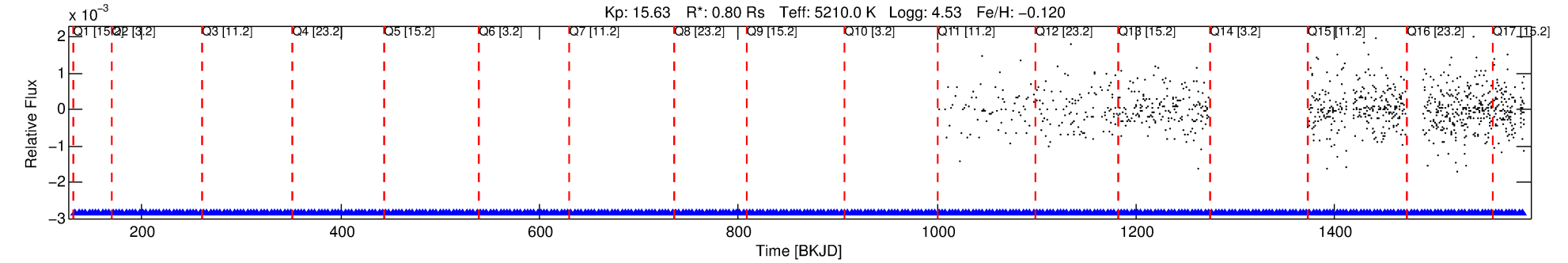
No Significant Match Found

DV One-Page Summary

KIC: 5024126 Candidate: 5 of 5 Period: 3.392 d

KOI: K06493 Corr: No Ephemeris Match

Kp: 15.63 R*: 0.80 Rs Teff: 5210.0 K Logg: 4.53 Fe/H: -0.120



DV Fit Results:

Period = 3.39250 [0.00003] d
Epoch = 133.3700 [0.0035] BKJD
Rp/R* = 0.0348 [0.0739]
a/R* = 21.21 [188.70]
b = 0.90 [1.93]
Seff = 253.46 [56.03]
Teff = 1017 [56] K
Rp = 3.03 [6.45] Re
a = 0.0408 [0.0046] AU
Ag = 24.56 [105.99] [0.22σ]
Teffp = 3502 [3778] K [0.66σ]

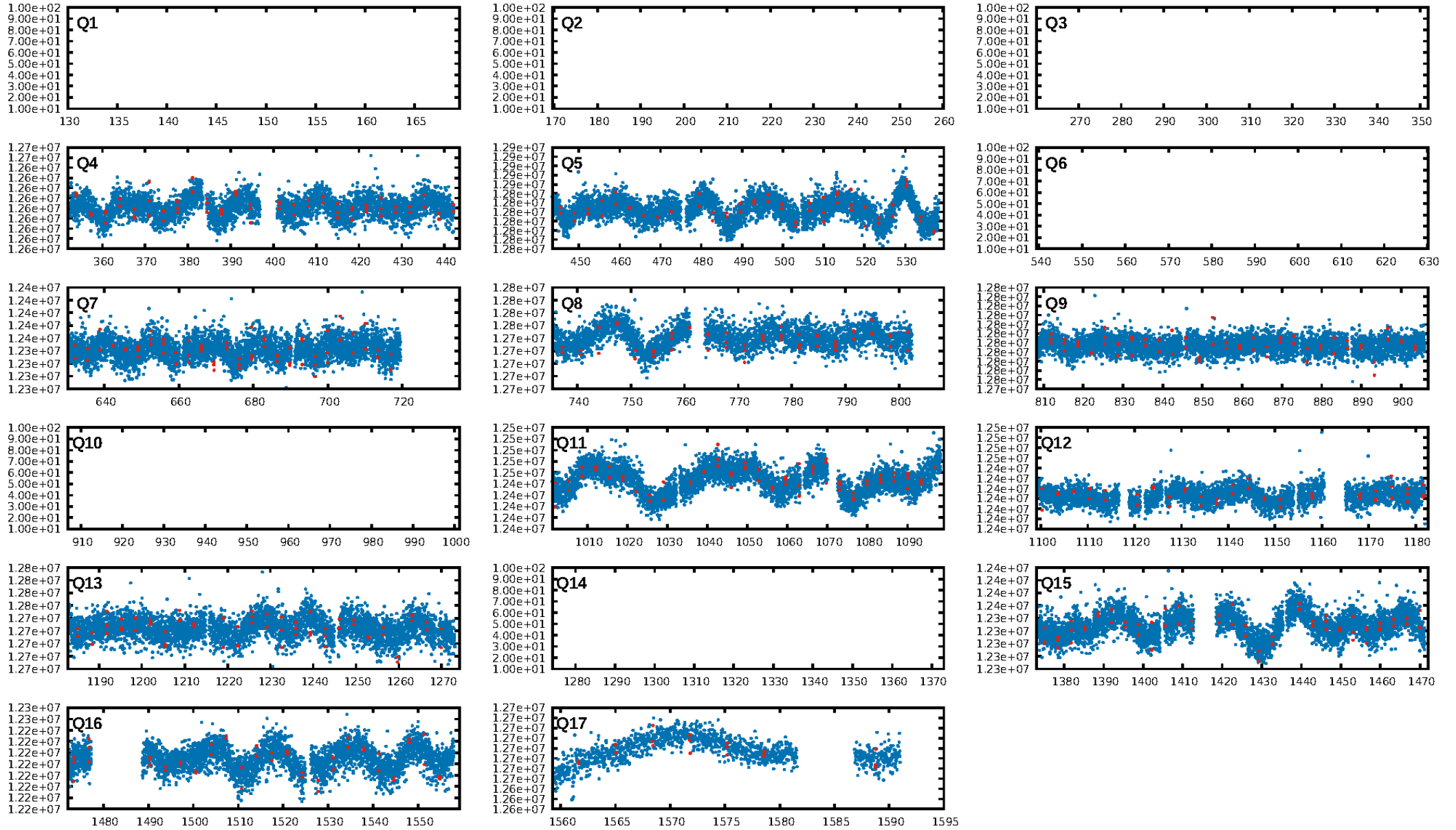
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [37.50σ]
LongPeriod-sig: 100.0% [44.38σ]
ModelChiSquare2-sig: 0.2%
ModelChiSquareGof-sig: 17.3%
Bootstrap-pfa: 2.76e-07
RollingBand-fgt: 1.00 [12/12]
GhostDiagnostic-chr: 2.591
Centroid-sig: N/A
Centroid-so: 1.752 arcsec [2.60σ]
OotOffset-rm: 5.581 arcsec [3.59σ]
KicOffset-rm: 5.696 arcsec [3.56σ]
OotOffset-st: 0/1/1/3 [5]
KicOffset-st: 0/1/1/3 [5]
DiffImageQuality-fgm: 0.20 [1/5]
DiffImageOverlap-fno: 0.00 [0/11]

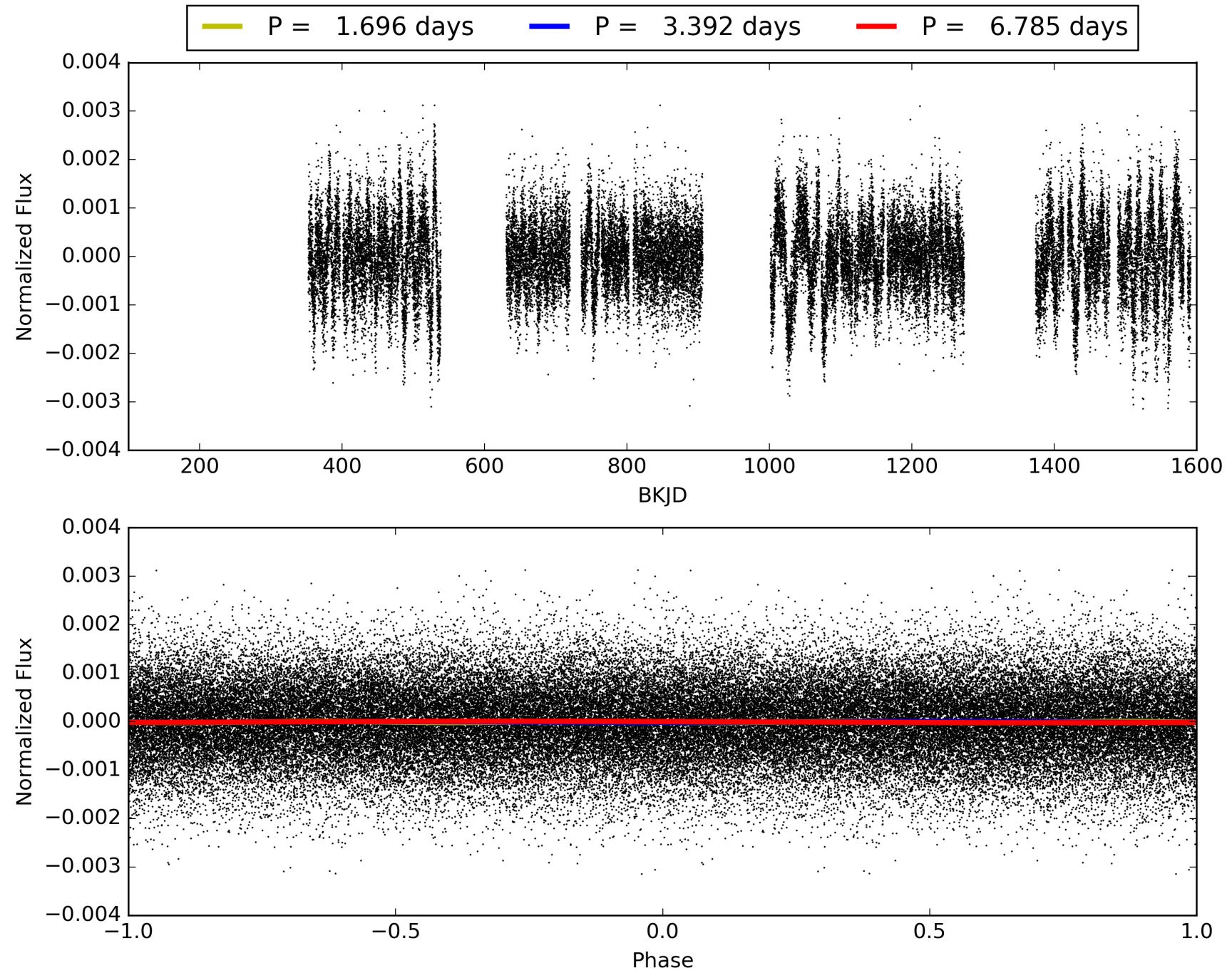
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 19:30:56 Z

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

TCE 005024126-05, PDC Light Curves

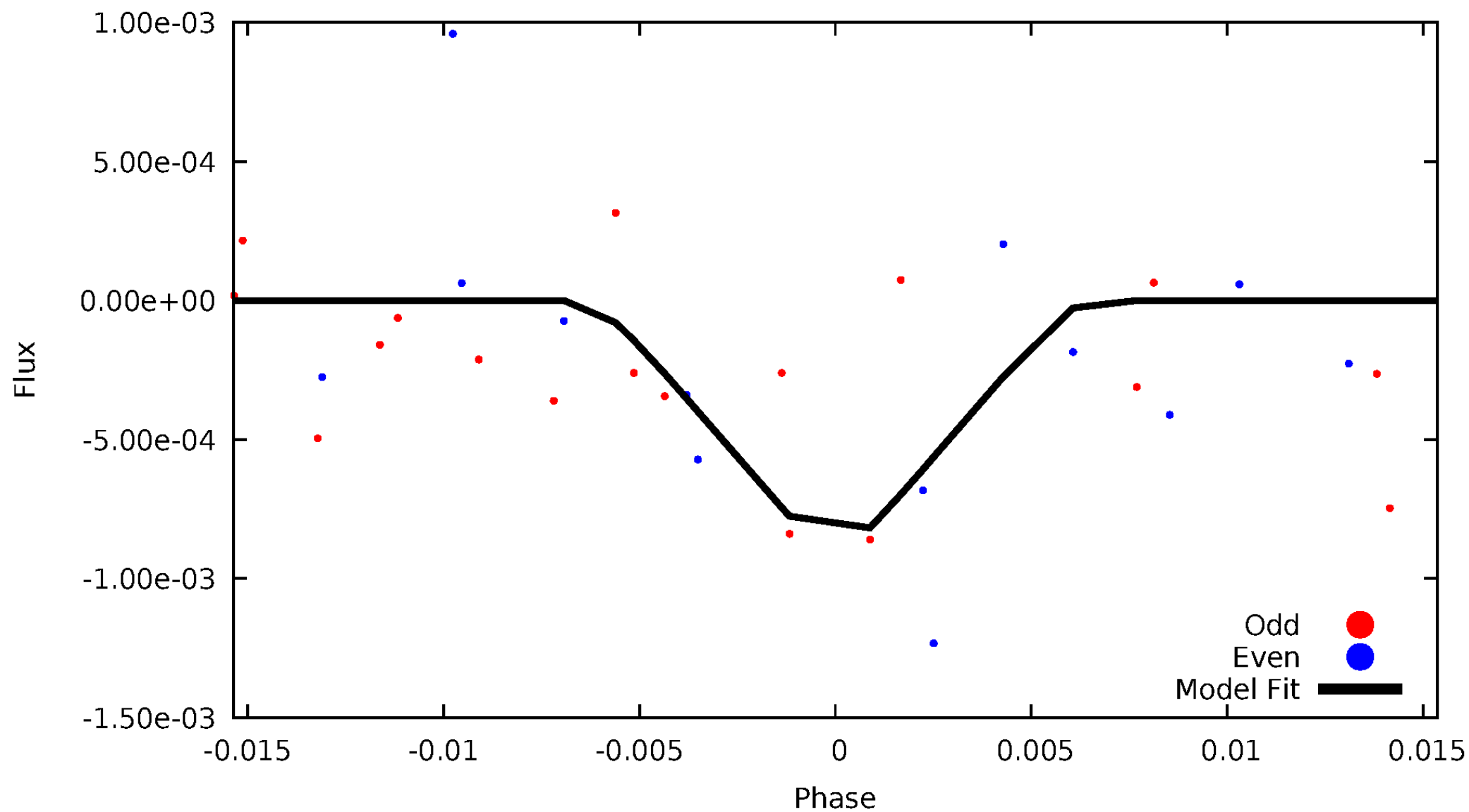


TCE 005024126-05



DV Odd/Even

TCE 005024126-05

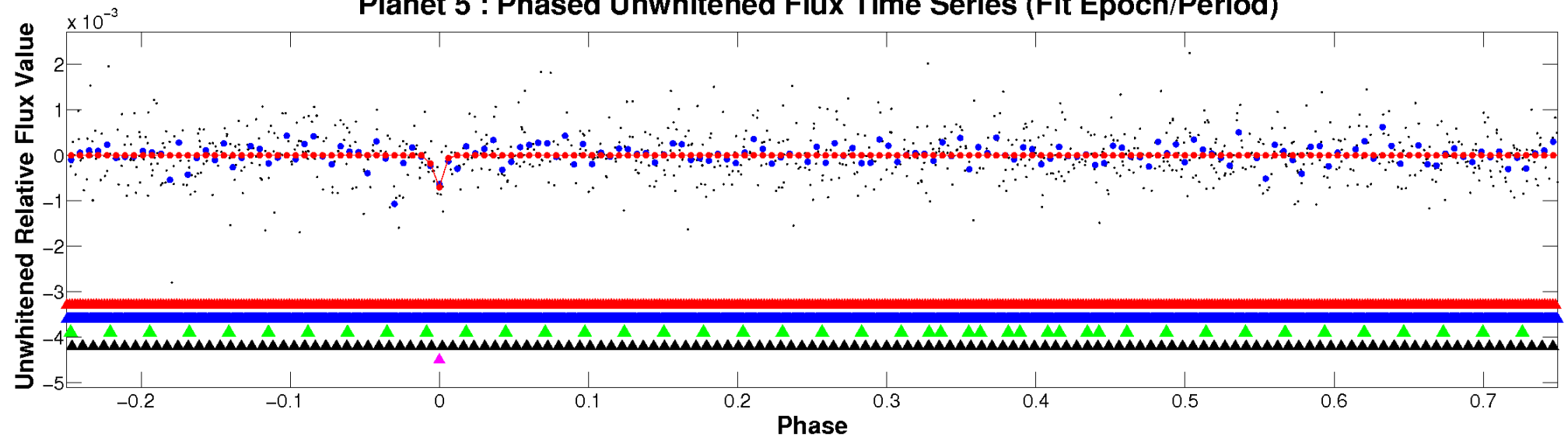


ALT Odd/Even

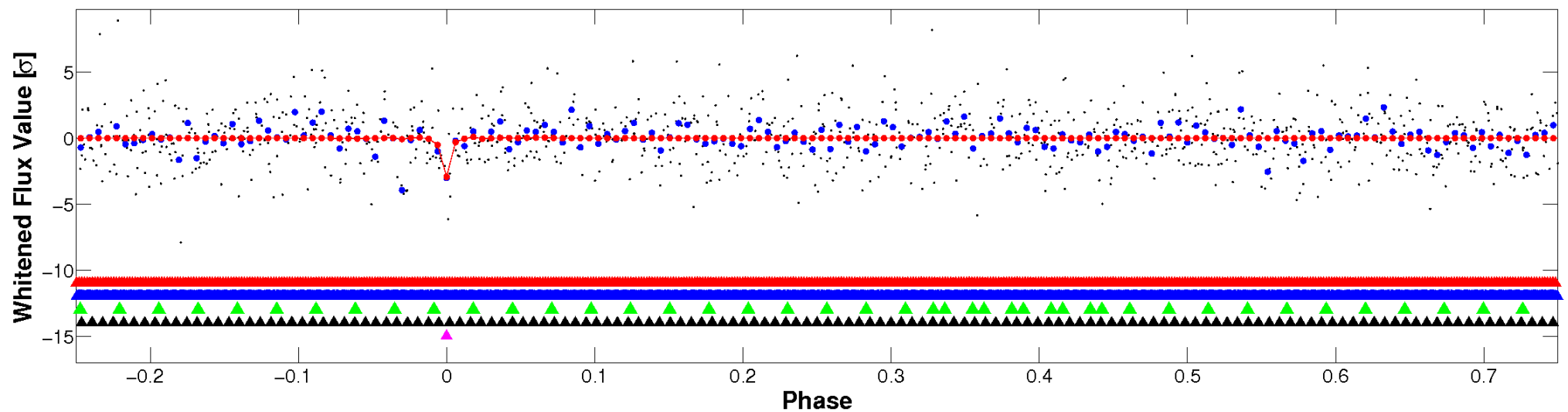
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

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

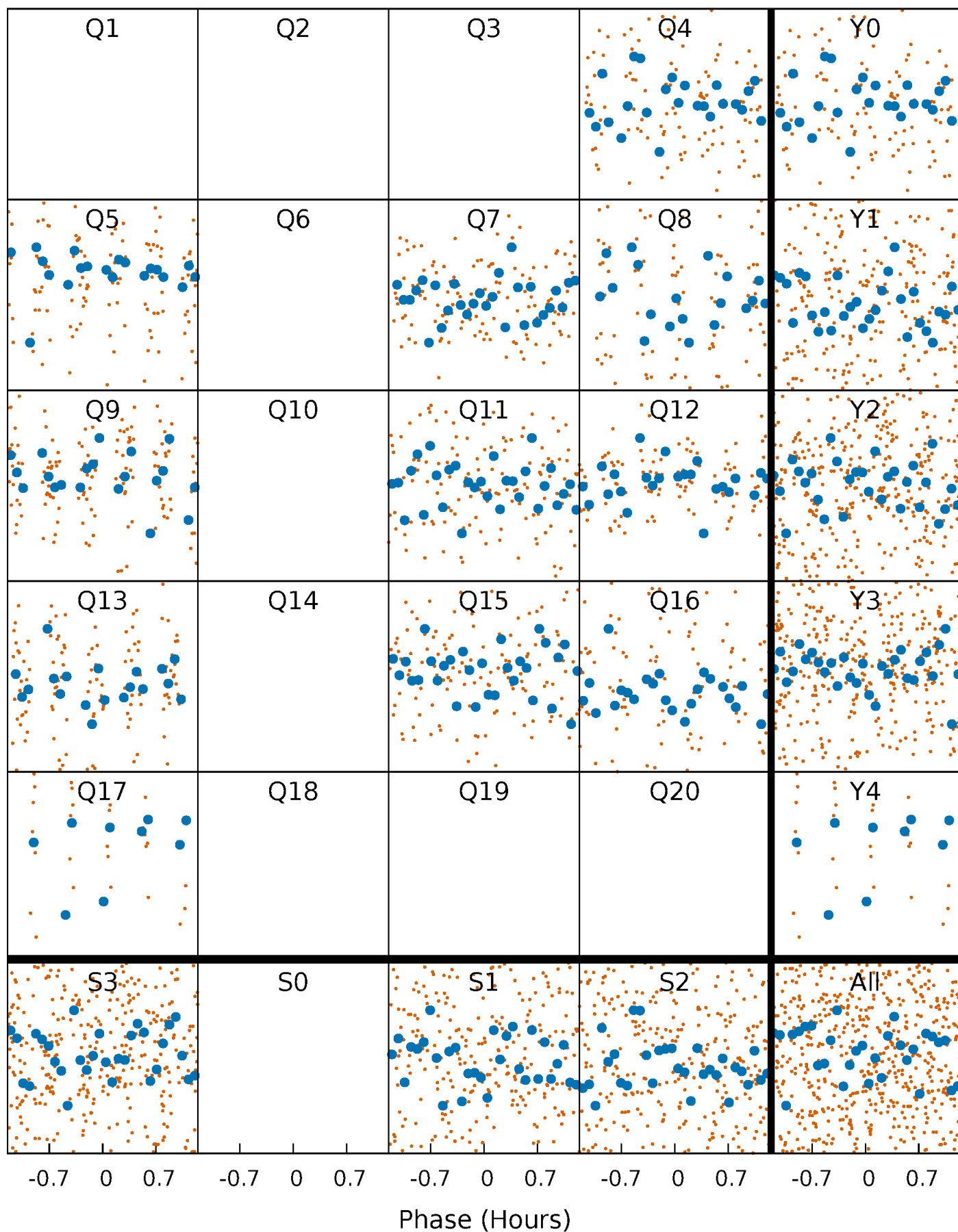


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



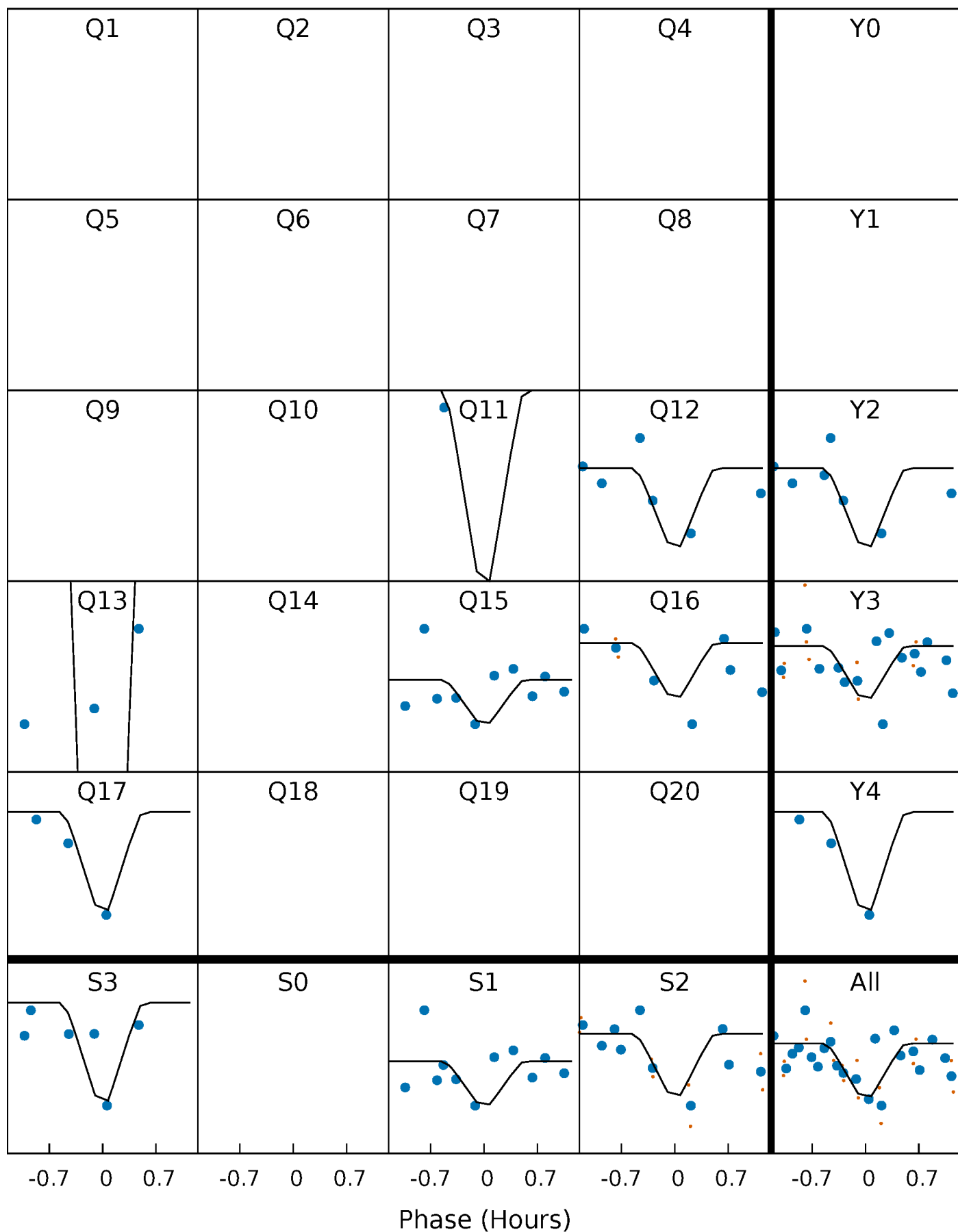
PDC Quarter-Phased Transit Curves

TCE 005024126-05 P= 3.392498 Days $T_0=133.369989$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 005024126-05 P= 3.392498 Days $T_0=133.369989$ (BKJD)

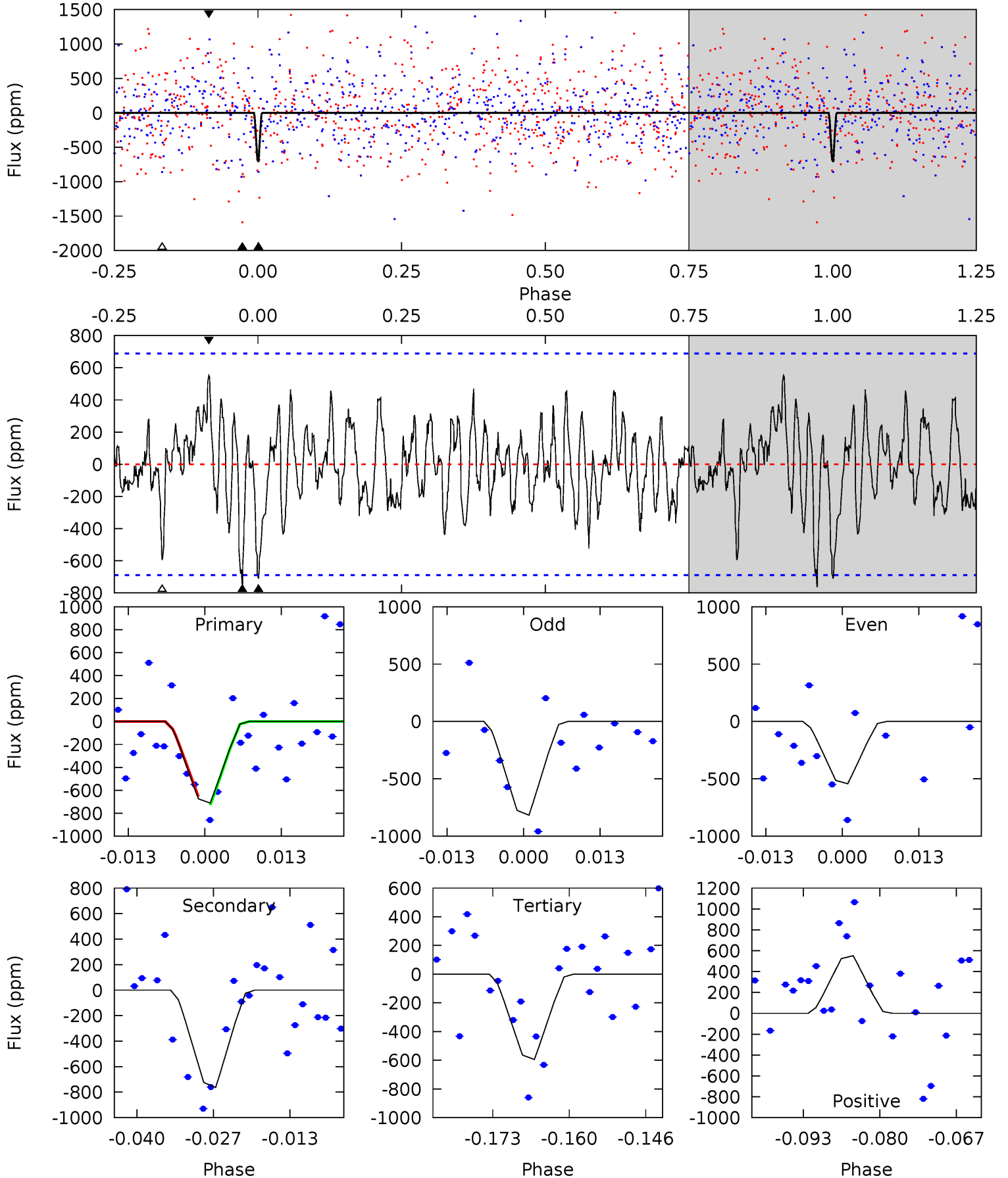


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

005024126-05, P = 3.392498 Days, E = 133.369989 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.13	5.51	4.29	3.98	4.97	2.48	1.46	0.84	1.15	1.22	1.52	1.03	0.97	0.42	0.27



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 005024126

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5210^{+203}_{-166}	$4.528^{+0.067}_{-0.082}$	$-0.120^{+0.300}_{-0.300}$	$0.799^{+0.112}_{-0.084}$	$0.786^{+0.103}_{-0.069}$	$2.169^{+0.673}_{-0.563}$
	+4%/-3%	+1%/-2%	+250%/-250%	+14%/-11%	+13%/-9%	+31%/-26%
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 005024126-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-763 ± 139	$5.54^{+5.90}_{-3.61}$	1429^{+68}_{-62}	3786^{+2055}_{-769}	23^{+172}_{-17}
Alt.	N/A	N/A	N/A	N/A	N/A

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

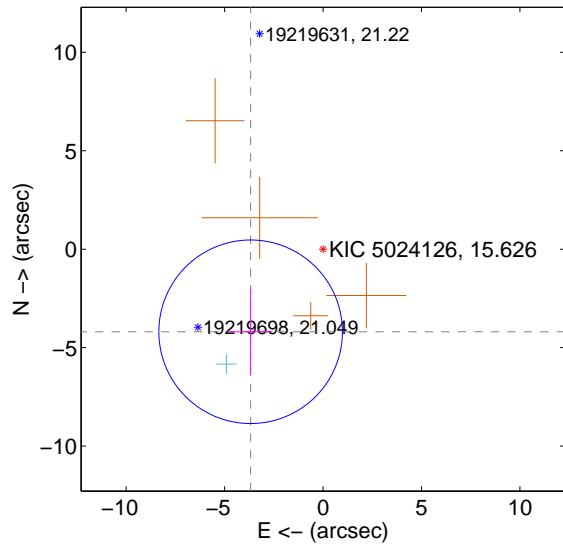
Supplemental centroid analysis for 005024126-05. Kepler magnitude: 15.63. Transit SNR 7.60

There are 1 quarters with good PRF difference image offsets

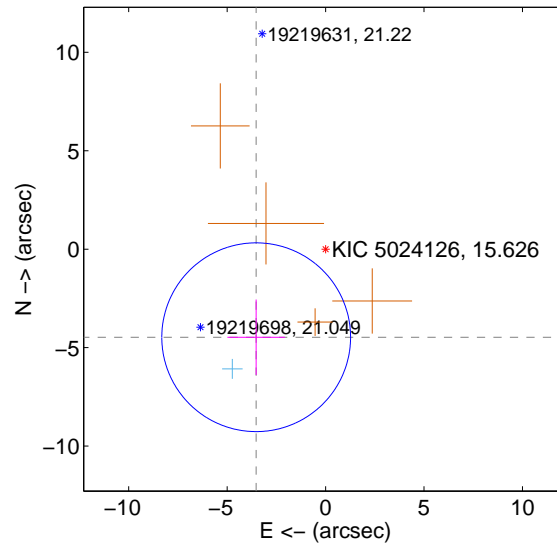
The direct PRF centroid is offset from the target star catalog position by about 0.35 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.581 ± 1.554	3.59	3.679 ± 1.122	-4.196 ± 2.181
PRF-fit source offset from KIC position	5.696 ± 1.598	3.56	3.526 ± 1.460	-4.474 ± 1.917
photometric centroid source offset	1.75 ± 0.67	2.60	-1.11 ± 0.71	-1.36 ± 0.65

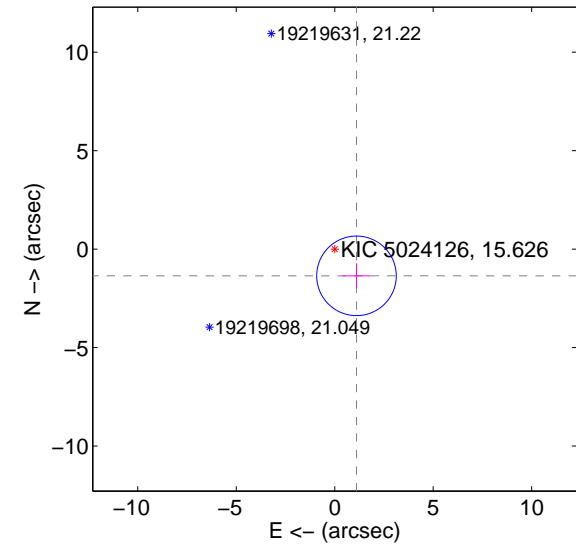
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

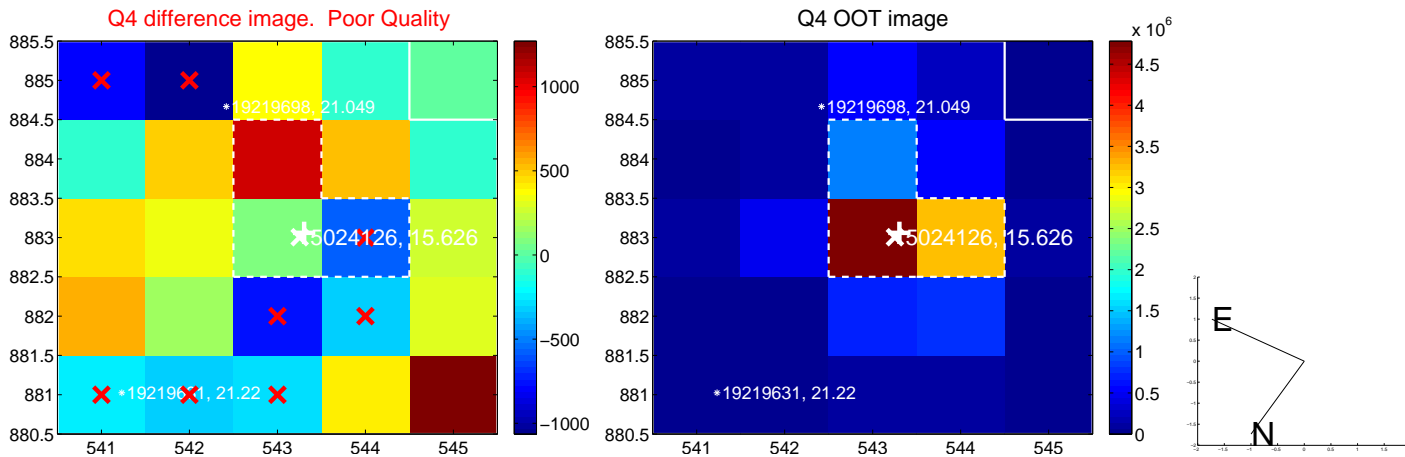
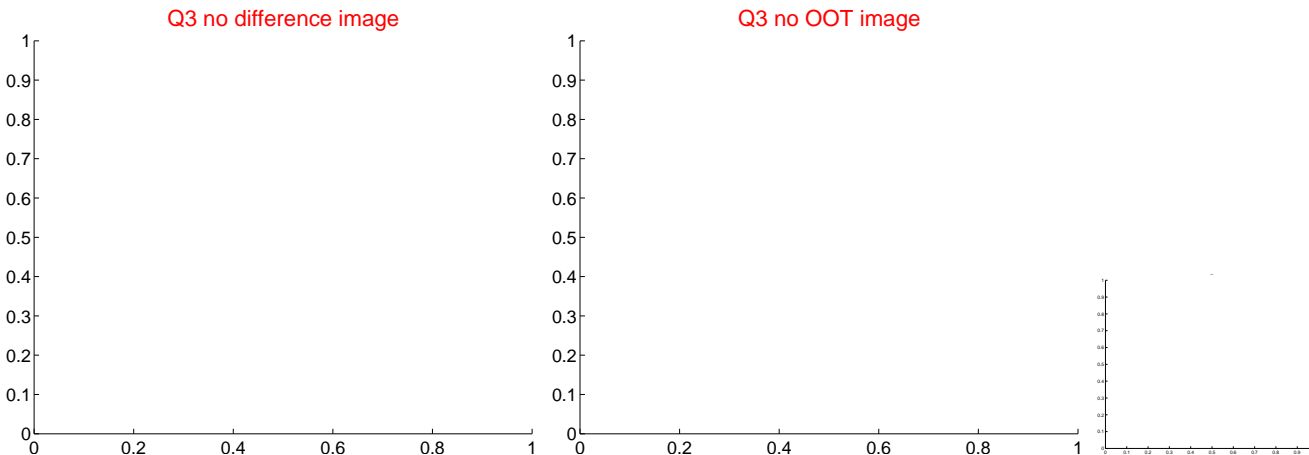
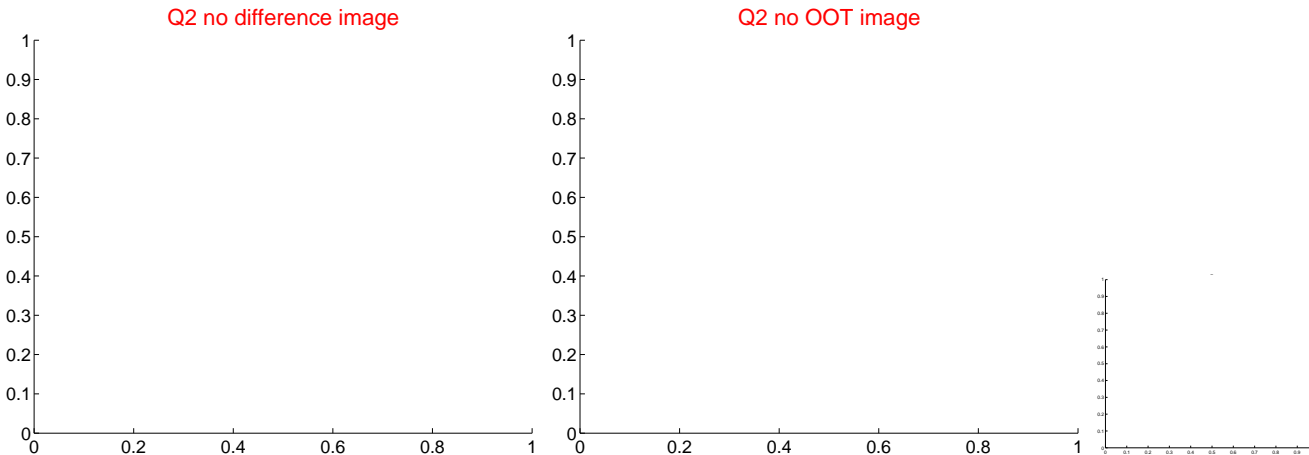
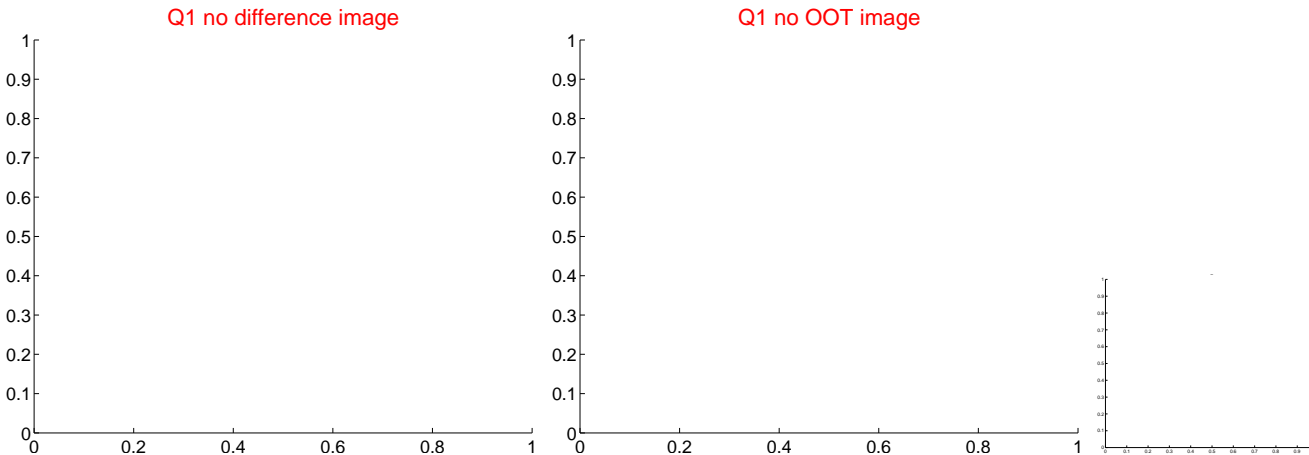


offset from photometric centroids

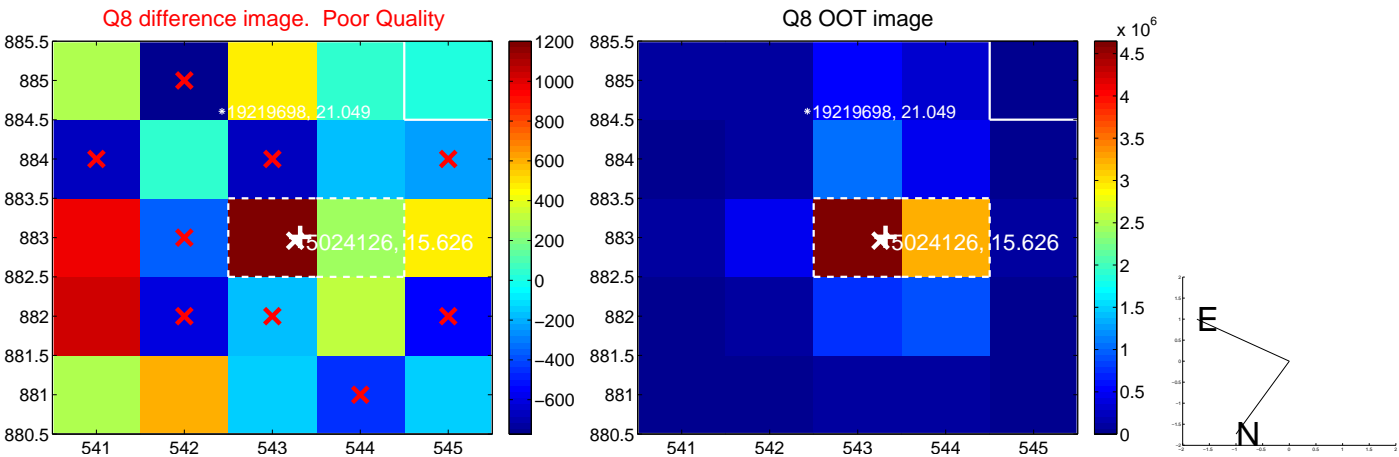
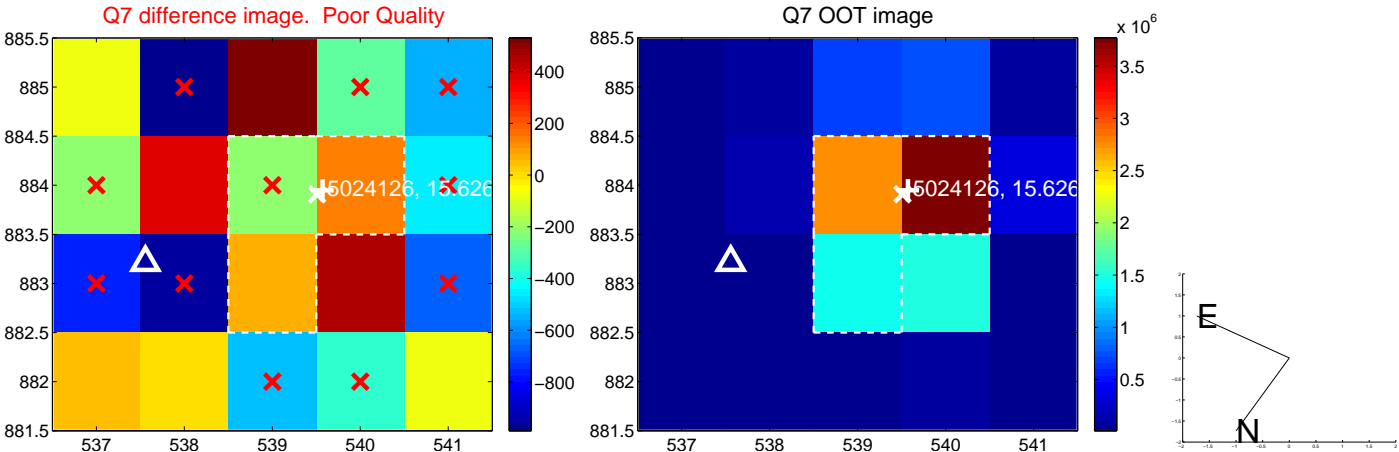
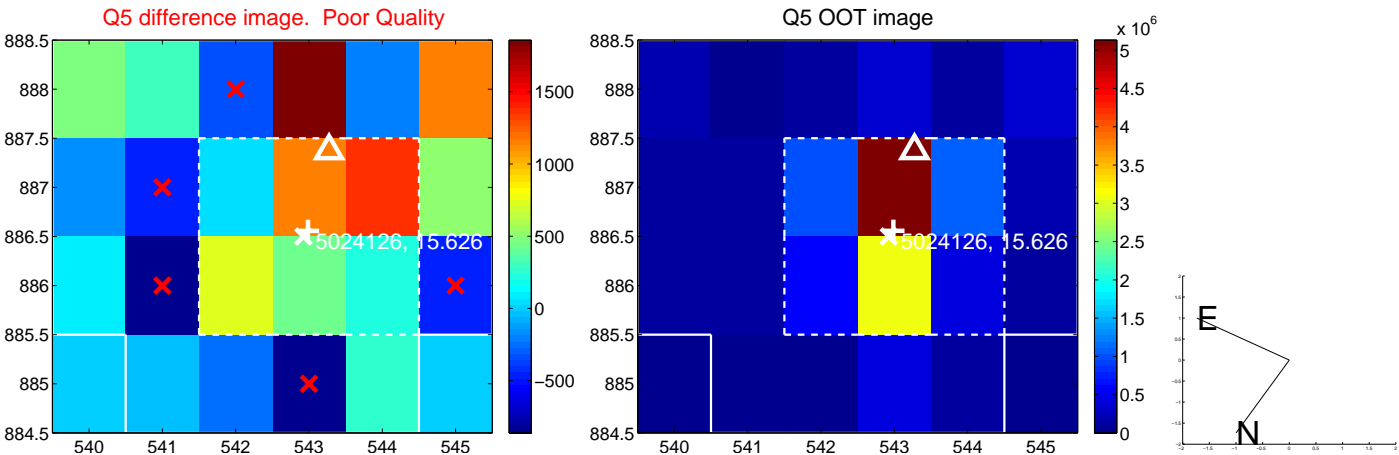


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

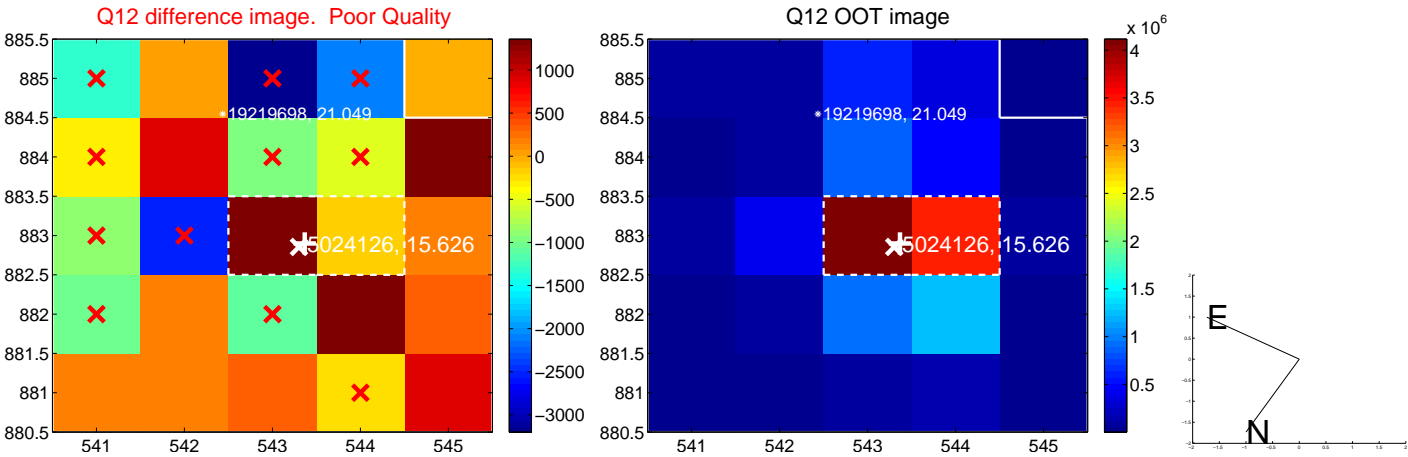
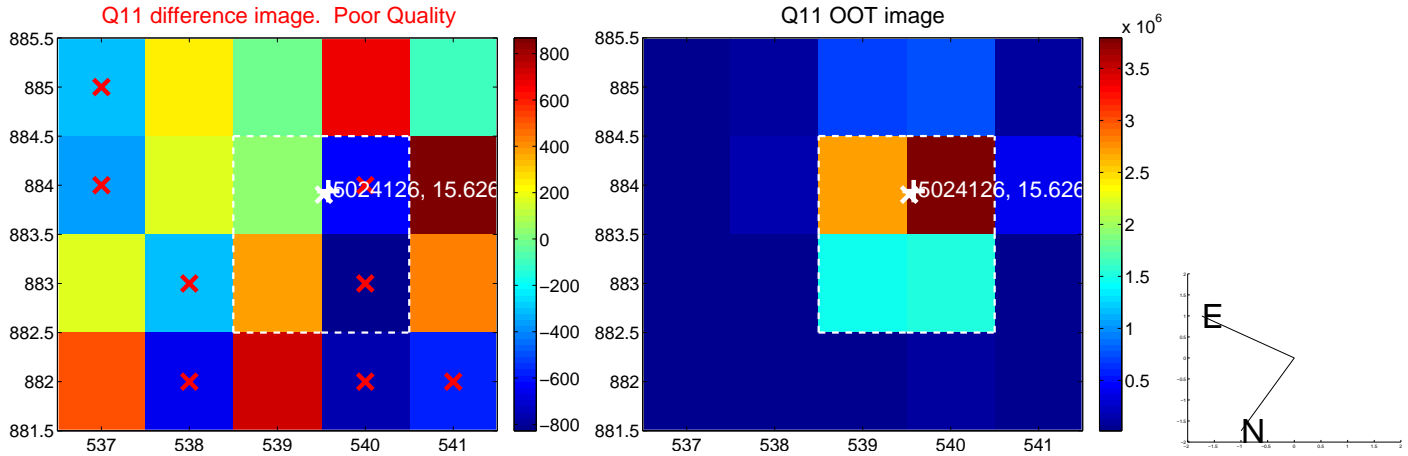
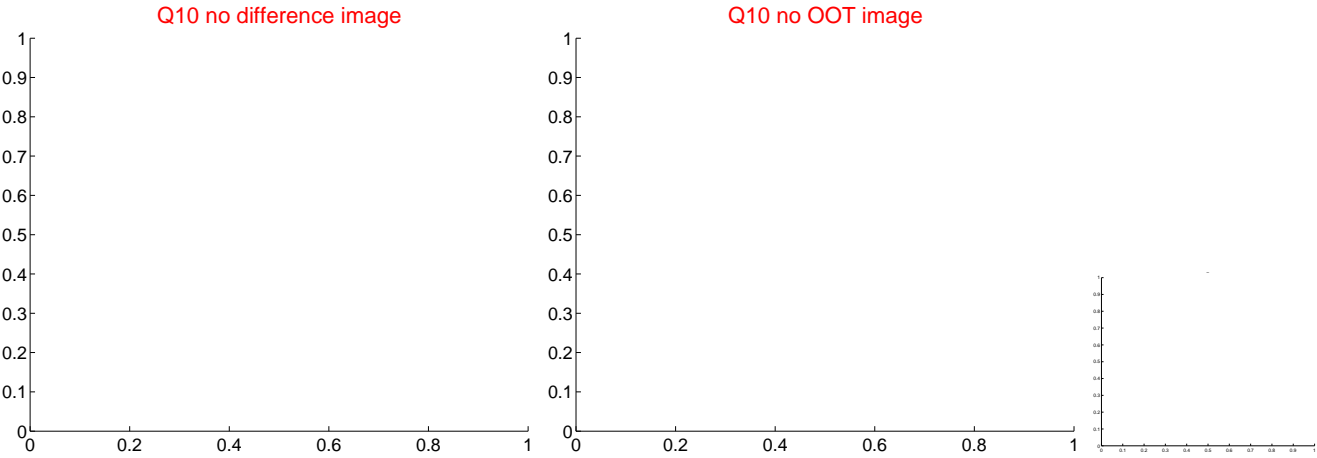
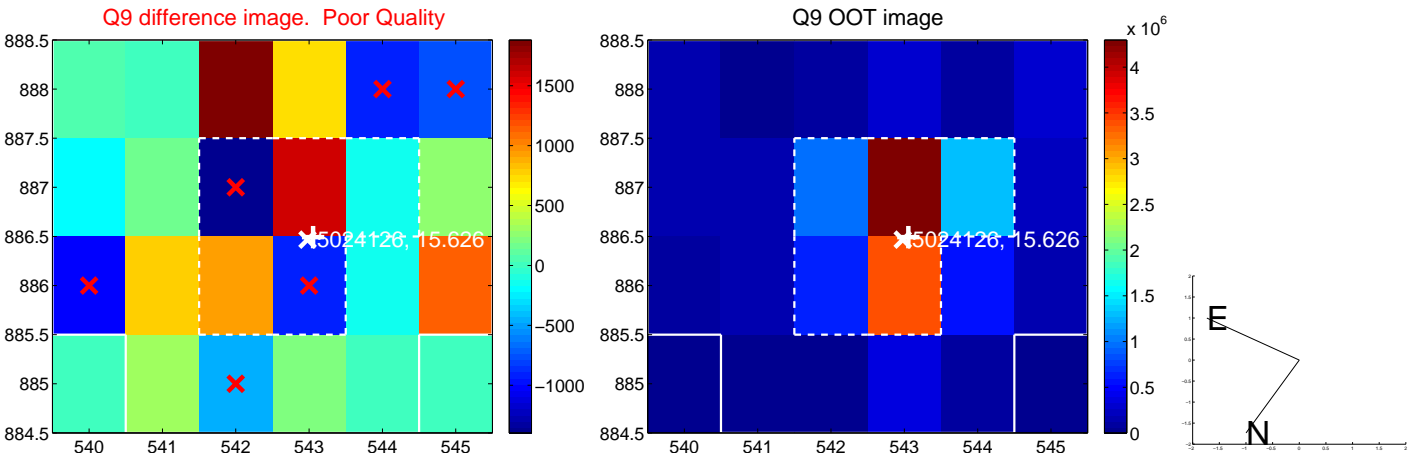
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



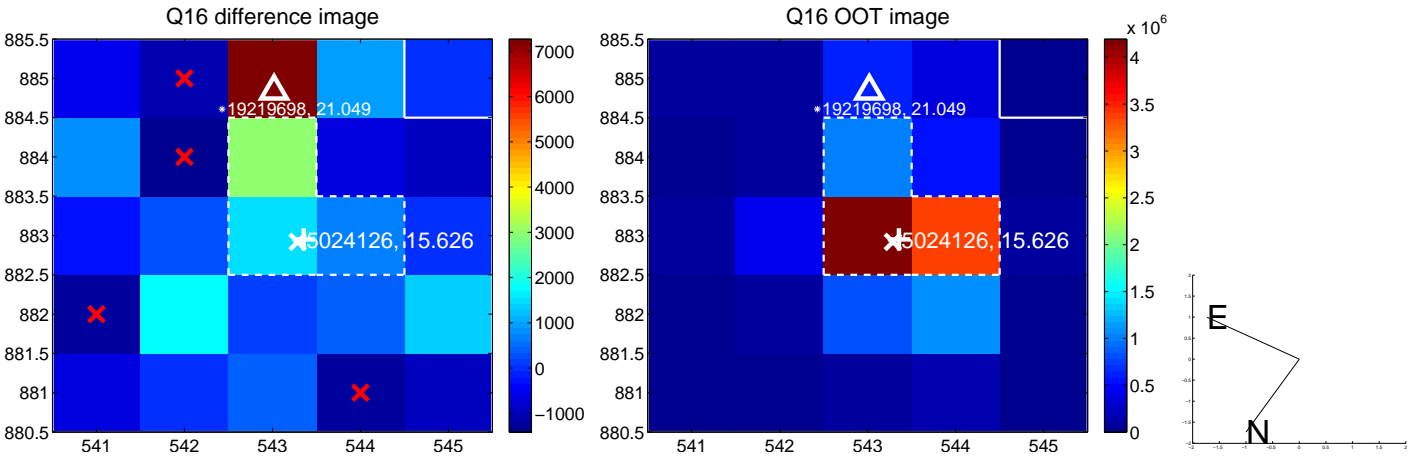
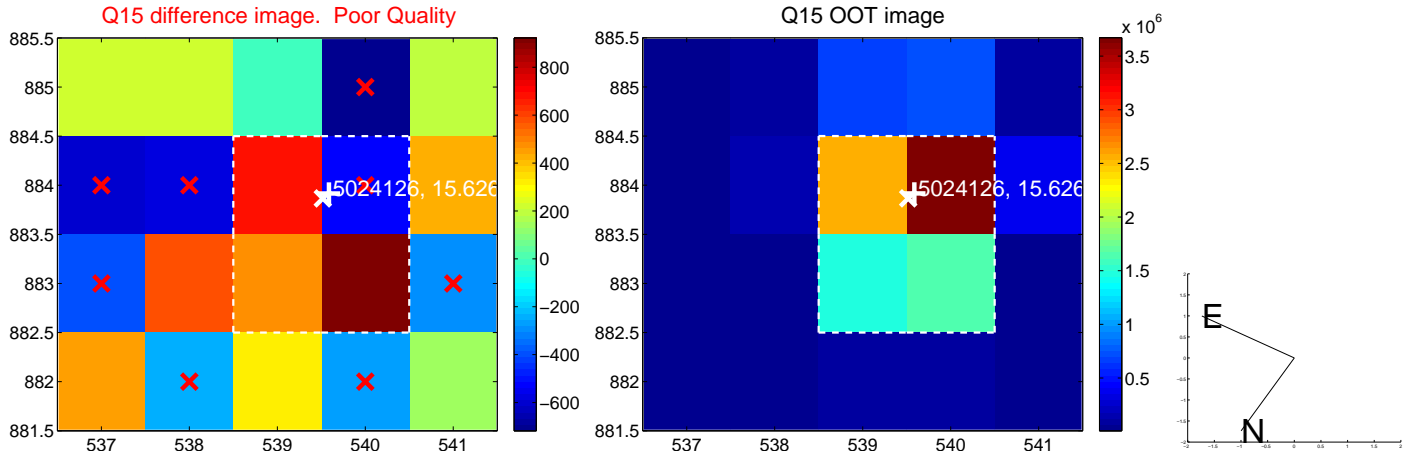
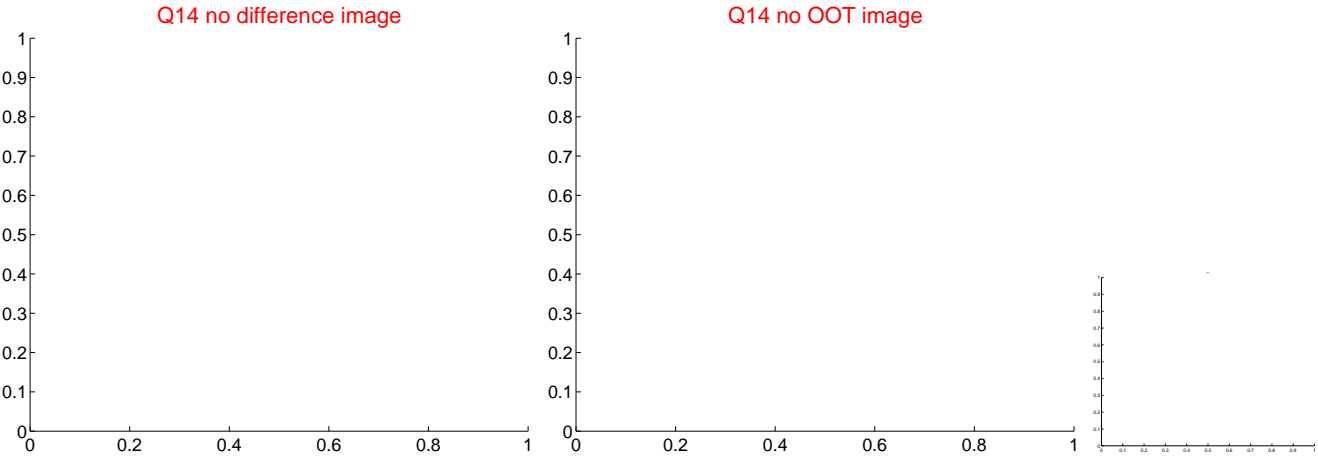
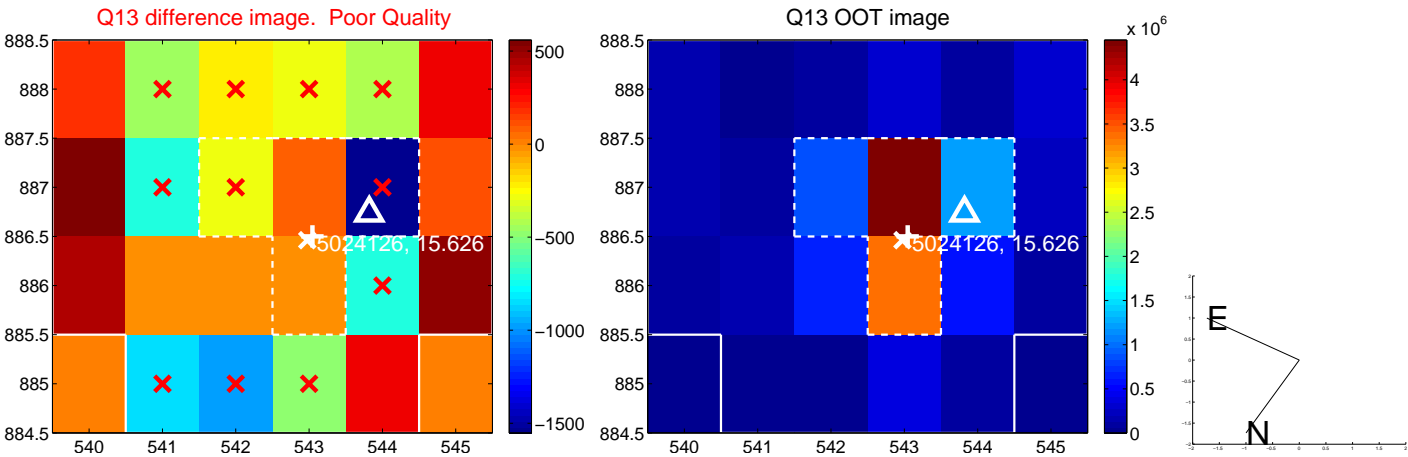
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



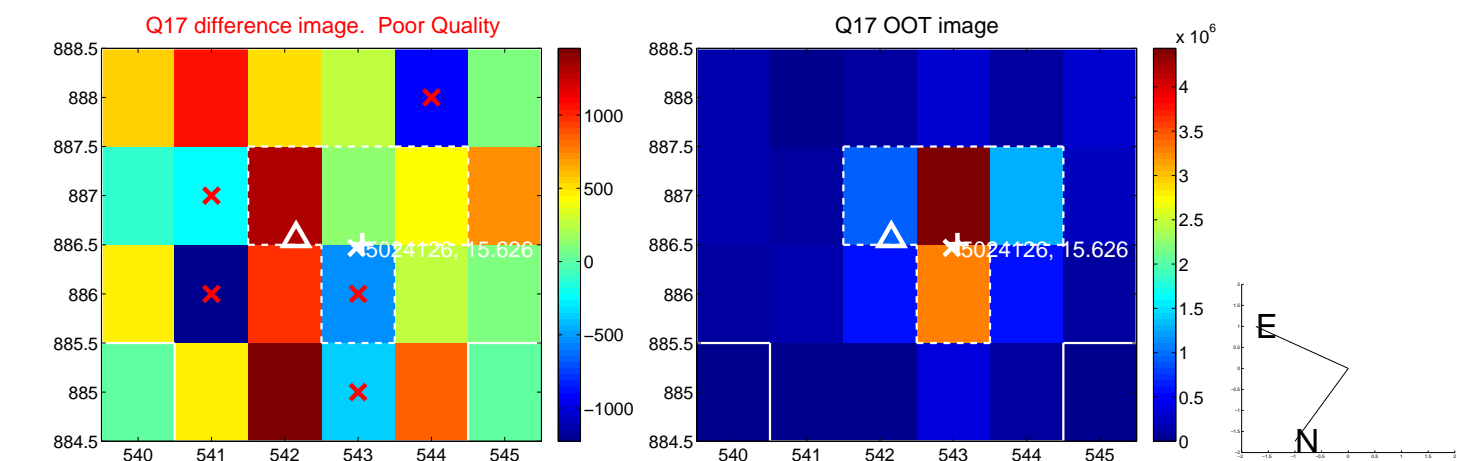
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



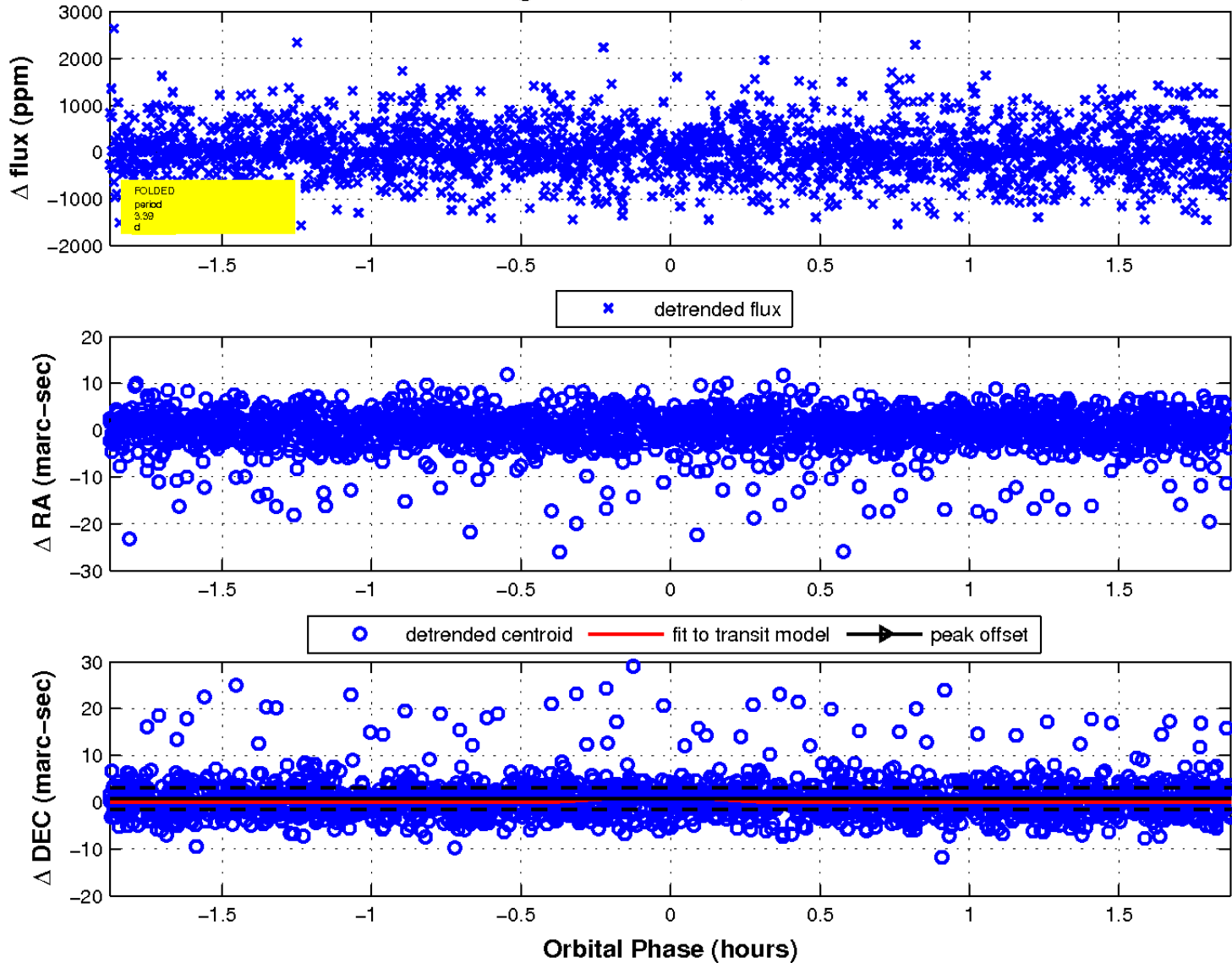
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 5 of 5



UKIRT Image

Declination

